

2019 Water Resources Development and Management Plan Table of Content

The following is a description of the content each section of the 2019 Water Resources Development and Management Plan (WRDMP) will contain.

WRDMP Section	Purpose	Content
Executive Summary	Provide an overview of the 2019 WRDMP Update.	<ul style="list-style-type: none"> Reasoning for the 2019 WRDMP Overview of the 2019 WRDMP investment Overview of the 2019 WRDMP Implementation
Introduction	Clearly defines the reasons and objectives for the updates in the 2019 WRDMP.	<ul style="list-style-type: none"> Background on El Dorado County's water resources development A history of previously developed WRDMPs 2019 WRDMP purpose as a county-level water policy and investment plan EDCWA's charges and commitment with El Dorado County Clarify EDCWA's role in water management issues in El Dorado County and describe its plan to help facilitate the General Plan's vision Summary of the 2019 WRDMP including expected goals from its implementation
Current Water Management in El Dorado County	Provide a description of current water resources and water resources management in El Dorado County.	<ul style="list-style-type: none"> Overview of water management agencies in El Dorado County Overview of water purveyors in El Dorado County El Dorado County underrepresented area Major findings for the West Slope and Tahoe Basin Resource Conservation Districts involvement in stormwater and watershed management in El Dorado County Major water facilities Watershed protection
Challenges Ahead	Provide a discussion of all the challenges El Dorado County faces.	<ul style="list-style-type: none"> Climate Change Changing regulatory environment Supply-demand imbalance Drought protection Vulnerable small systems and rural communities Forest fires Headwater management Flooding Quality of Life Groundwater Water Quality
Resource Management Strategy	Provide a discussion of how resources in El Dorado County will be managed. Entities leading, supporting, or working with each other to manage a resource will be identified.	<ul style="list-style-type: none"> Overview of EDCWA's investment Benefits from ongoing and future EDCWA led water projects Demand management Fuel management Stormwater management County-wide drought plan Agriculture in El Dorado County Groundwater protection Alignment with Reclamation and other agencies
Implementation	Provide an overview on how EDCWA will implement the 2019 WRDMP.	<ul style="list-style-type: none"> EDCWA programs and updates Funding strategy

Key:
EDCWA = El Dorado County Water Agency
Reclamation= U.S. Department of the Interior Bureau of Reclamation
WRDMP = Water Resources Development & Management Plan

2019 Water Resources Development and Management Plan
Plan Advisory Group
DRAFT CHARTER
Version: December 17, 2018

PURPOSE AND GOALS

The purpose of the Plan Advisory Group is to provide feedback on the direction and content of the 2019 Water Resources Development and Management Plan (WRDMP) for El Dorado County.

The goals of the Plan Advisory Group are to:

1. Provide information to populate the 2019 WRDMP.
2. Provide clear, constructive, and relevant feedback to the development of the 2019 WRDMP.
3. Foster collaboration amongst agencies to address future water resource needs.

BACKGROUND

El Dorado County Water Agency (EDCWA) plans to update its 2007 WRDMP which focuses on preserving long-term water supply and economic prosperity in El Dorado County. The 2019 WRDMP will be a comprehensive plan that provides direction to EDCWA's future investments on all aspects of water resource development and management that will enhance the benefits for El Dorado County as a whole, while still conforming with the roles and responsibilities of EDCWA. The 2019 WRDMP is intended to be a "stand alone" document that synthesizes technical studies and planning evaluations. It will be succinct and focused with an estimated volume of around 80 pages. It is intended to be in a format that easily allows executive-level staff, elected officials, other decision makers, and stakeholders and interested parties to get a clear and concise summary of the plan – its intent, water resources challenges facing El Dorado County and associated resource management strategies, and implementation considerations.

To develop the 2019 WRDMP, it is important to have feedback and input during plan development. As such, EDCWA established this Plan Advisory Group to assist the plan development process and ensure the integrity and applicability for the resulting product. This Plan Advisory Group will be the only consistent group established to assist the plan development purposes. All other topic specific discussions and coordination will leverage existing venues or project functions for efficiency.

MEMBERSHIP

The Plan Advisory Group is made up of eight members.

1. Ken Payne- El Dorado County Water Agency
2. Charlene Carveth- El Dorado County
3. Tiffany Schmid- El Dorado County
4. Brain Mueller- El Dorado Irrigation District
5. Steve Palmer-Georgetown Divide Public Utility District
6. Jodi Lauther- Grizzly Flats Community Services District
7. Shannon Cotulla- South Tahoe Public Utility District
8. Sean Barclay- Tahoe City Public Utility District

It is anticipated that additional people will attend the Plan Advisory Group meetings, but priority will be given to the Plan Advisory Group members when feedback is requested on the direction and content of the 2019 WRDMP.

ROLES AND RESPONSIBILITIES

Members

Plan Advisory Group members agree to:

- Participate in providing feedback on the direction and content of the 2019 WRDMP.

EDCWA

EDCWA agrees to:

- Lead the development of the 2019 WRDMP.

Stantec Consultants

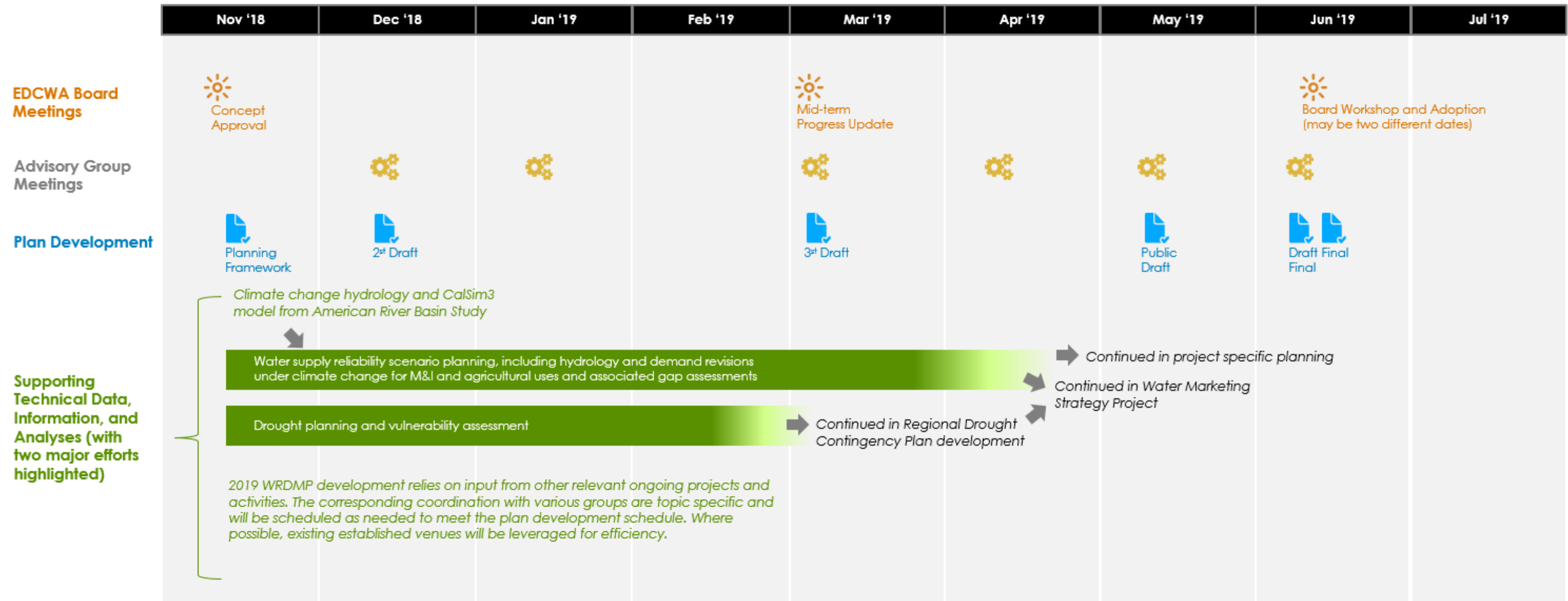
Stantec staff agree to:

- Support EDCWA in the completion of the 2019 WRDMP.

ATTENDANCE AND MEETING SCHEDULE

It is anticipated that the Plan Advisory Group will meet monthly up to 6 times over a period of 7 months. Attendance at every meeting is expected, or a Plan Advisory Group member can designate an alternate to attend on their behalf who has decision making authority and can provide feedback related to the 2019 WRDMP on behalf of their absence. Plan Advisory Group members should anticipate giving an average of 3-4 hours per month to attend Plan Advisory Group meetings and review meeting materials. The following is the anticipated schedule for the completion of the 2019 WRDMP.

Anticipated Planning Schedule for 2019 WRDMP



Key:
 EDCWA= El Dorado County Water Agency
 M&I= Municipal and Industrial
 WRDMP= Water Resources Development and Management Plan

GROUND RULES

- Use common conversational courtesy.
- All ideas and points of view have value.
- Members will encourage innovation by listening to all ideas.
- Meetings will begin and end on time.
- Electronics courtesy.
- All members take responsibility for success of the meeting.
- Meeting agenda will be sent in advance to members.
- Members will use a “parking lot” for ideas that come up, but are outside the scope of the meeting focus where they were raised.
- Be respectful and supportive of our goals, find ways to move the conversation forward instead of halting it (use more “ands” and less “buts”).
- Be present and minimize distractions.
- You are free to disagree with any point made. However, be specific about what the problem is and offer positive alternatives.
- When you have the floor, provide thoughtful comments, be relevant, and then yield the floor to others. Do not interrupt.

El Dorado County Water Agency

Draft 2019 Water Resources Development and Management Plan

December 17, 2018



ES-1. Executive Summary

“Ensure that El Dorado County has adequate water for today and in the future.”

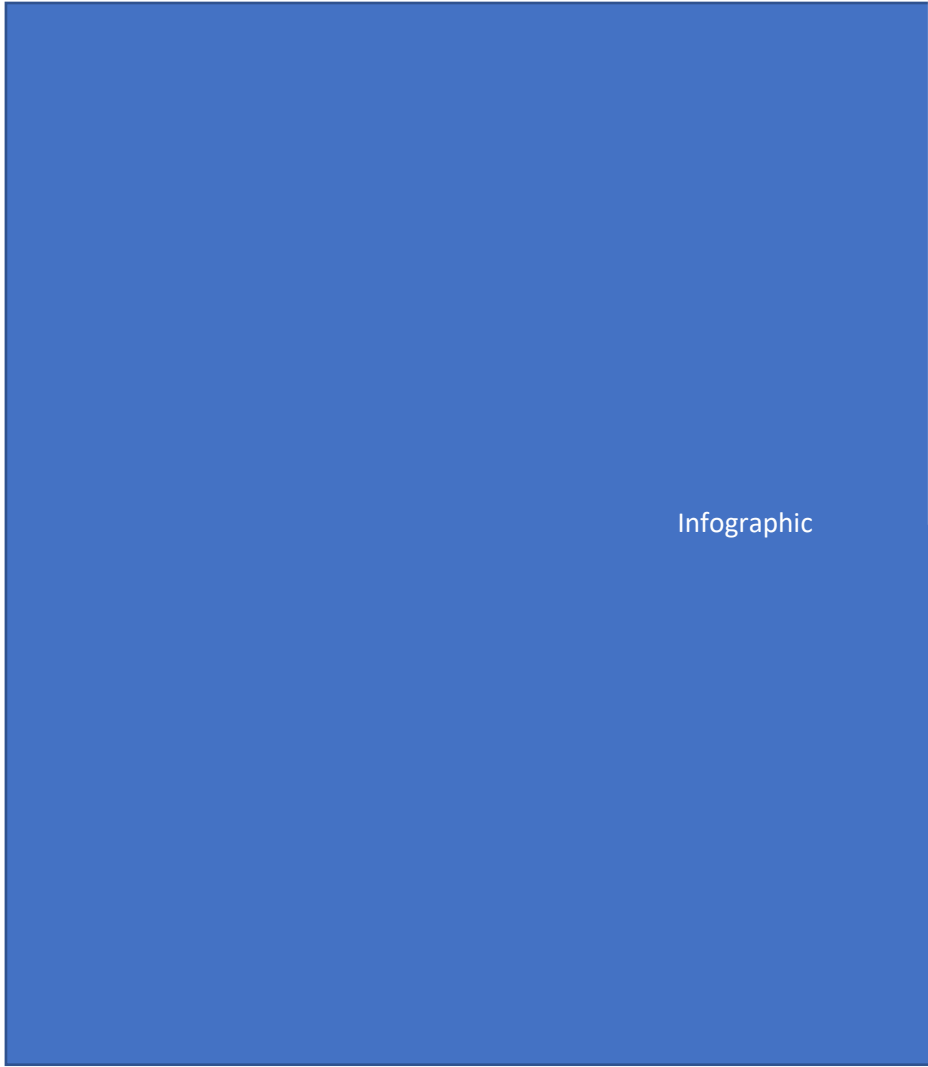
-El Dorado County Water Agency, Mission Statement



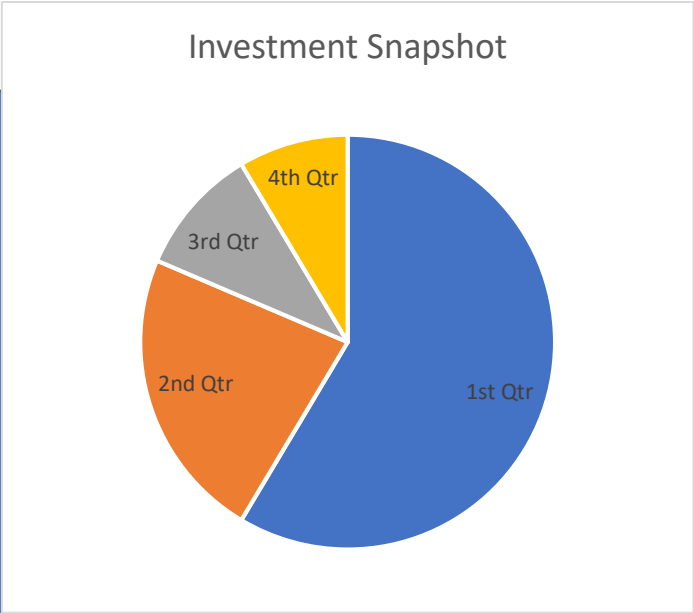
¹ Front cover image by: Brendan Ferry, County of El Dorado; Executive summary image by: Amy Phillips, County of El Dorado

Executive Summary Placeholder

ES-2. Investment



Infographic



ES-3. Implementation

program, roles, responsibilities

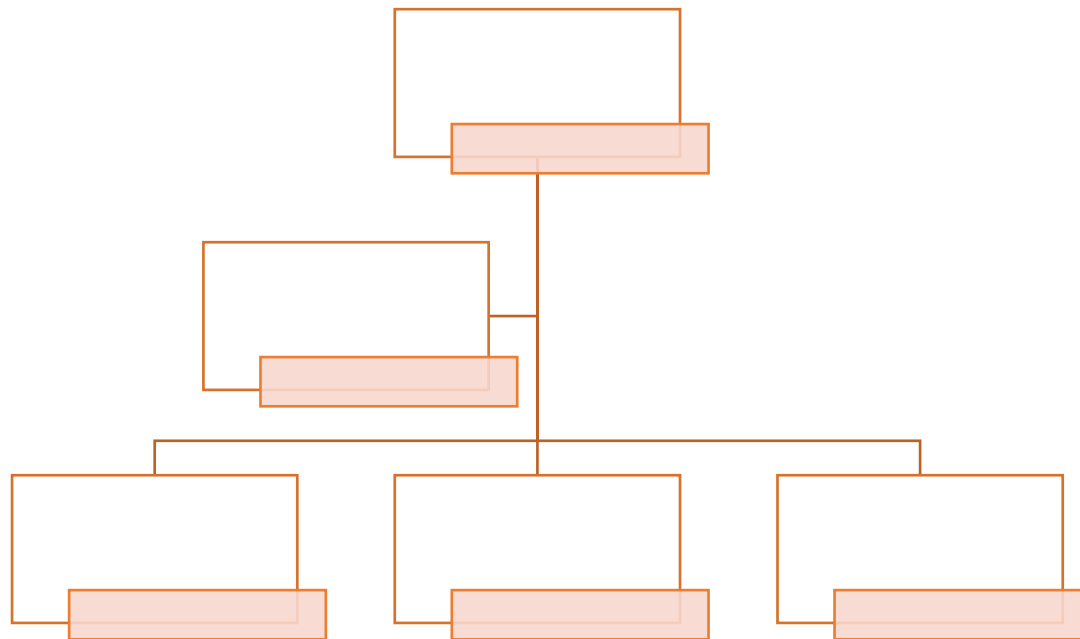


Table of Contents



ES-1. Executive Summary	2
ES-2. Investment	4
ES-3. Implementation	5
Table of Contents	6
Key Definitions	9
1 Introduction	11
1.1 Background of El Dorado County Water Resource Development	12
1.2 Water Resources Development and Management Plan.....	13
1.3 El Dorado County Water Agency Charges.....	14
1.4 El Dorado County General Plan.....	15
1.5 2019 Water Resources Development and Management Plan.....	16
1.5.1 El Dorado County Water Agency Expected Outcomes	17
2 Current Water Management in El Dorado County	18
2.1 Water Management Agencies	19
2.1.1 Water Service Areas.....	23
2.1.2 West Slope-Major Findings	27
2.1.3 Tahoe Basin- Major Findings.....	28
2.1.4 Resource Conservation Districts	29
2.1.5 Major Water Facilities.....	30
2.1.6 Protected Watersheds	31
3 Challenges Ahead.....	33
3.1 Challenges in El Dorado County	34
3.1.1 Climate Change	34
3.1.2 Changing Regulatory Environment	34

3.1.3	Challenges and Problems	34
3.2	Challenge 1: Supply-Demand Imbalance	34
3.3	Challenge 2: Drought Protection	34
3.4	Challenge 3: Vulnerable Small Systems and Rural Communities	34
3.5	Challenge 4: Forest Fires	35
3.6	Challenge 5: Headwater	35
3.7	Challenge 6: Flooding.....	35
3.8	Challenge 7: Quality of life.....	35
3.9	Challenge 8: Groundwater	35
3.10	Challenge 9: Water Quality	35
3.11	Challenges Summary.....	35
4	Resource Management Strategy	36
4.1	Overview (EDCWA’s investment).....	37
4.2	More Water at Higher Elevations and Less Flood.....	37
4.3	Demand Management	37
4.4	Fuel Management.....	37
4.5	Stormwater	37
4.6	Countywide Drought Plan	37
4.7	Serving Agriculture.....	38
4.8	Groundwater Protection.....	38
4.9	Align with Reclamation	38
5	Implementation	39
5.1	EDCWA Programs, including updates	40
5.2	Funding Strategy	40

Key Definitions

Alder Project	Alder Creek Storage and Conservation Project
BMP	Best Management Practices
County	County of El Dorado
CPCSD	Community Park Community Services District
CSD	Community Service District
CVP	Central Valley Project
DWR	California Department of Water Resources
DOT	Department of Transportation
EDCWA	El Dorado County Water Agency
EDWRP	El Dorado Water Reliability Project
EID	El Dorado Irrigation District
GDPUD	Georgetown Divide Public Utility District
General Plan	El Dorado County General Plan
GFCSD	Grizzly Flats Community Services District
GSA	Groundwater Sustainability Agency
INRMP	Integrated Natural Resources Management Plan
IRWMP	Integrated Regional Water Management Plan
LID	Low Impact Development

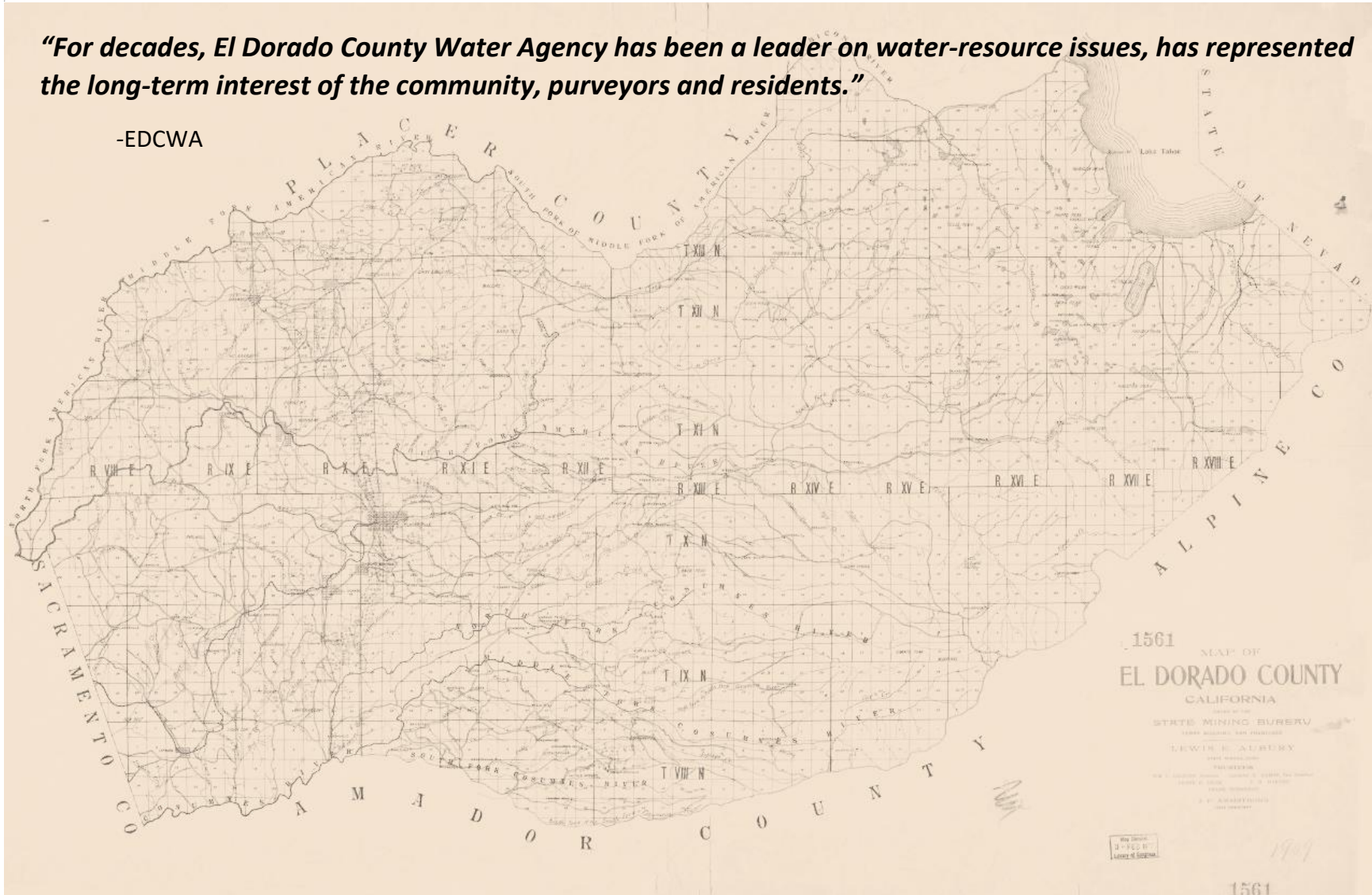
M&I	Municipal and Industrial
NPDES	National Pollutant Discharge Elimination System
NGO	Non-Governmental Organization
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
SMUD	Sacramento Municipal Utility District
SWMP	Storm Water Management Plan
SWRP	Stormwater Resource Plan
SWRP Partners	EDCWA, County of El Dorado, and the City of Placerville
TMDL	Total Maximum Daily Load
Water Board	State Water Resources Control Board
WRDMP	Water Resources Development and Management Plan
WWTF	Wastewater Treatment Facility
WWTP	Wastewater Treatment Plant

The authors of this document wish to thank the organizations and local water purveyors that provided practical assistance in the in the preparation of this update including the County of El Dorado (County), El Dorado Irrigation District (EID), Georgetown Divide Public Utility District (GDPUD), Grizzly Flats Community Services District (GFCSD), South Tahoe Public Utility District (STPUD), Tahoe City Public Utility District (TCPUD), and the City of Placerville.

1 Introduction

“For decades, El Dorado County Water Agency has been a leader on water-resource issues, has represented the long-term interest of the community, purveyors and residents.”

-EDCWA



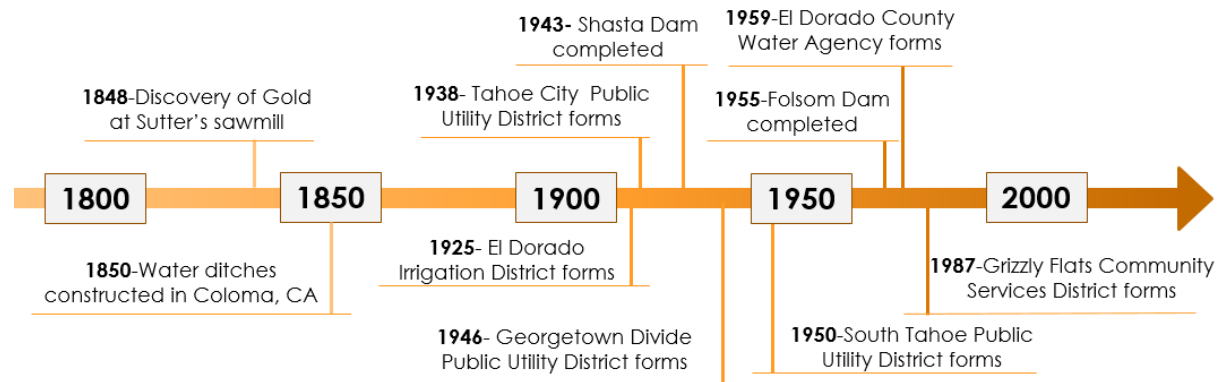
² Introduction image: <https://www.loc.gov/resource/g4363e.ct001864/?r=0.181,0.306,0.569,0.35,0>

1.1 Background of El Dorado County Water Resource Development

In the 1840's El Dorado County was inhabited by Native Americans, Mexicans and a few European settlers. On January 24, 1848 gold was discovered³ on John Sutter's sawmill. The discovery of gold in northern California launched the Gold Rush that led to the migration of immigrants into California in search of gold. Immigrants settled and formed the communities of Placerville, Coloma, Georgetown, Cool, and Fairplay in El

Dorado County⁴. To extract gold miners used dry digging and hydraulic mining. Through hydraulic mining, flumes and ditches were created to reroute water and sluice out the gold. Once gold became scarce the settlers turned to farming. Given El Dorado County's abundant water supply from rainfall and the Sierra Nevada snowmelt, ditches were first constructed in Coloma in 1850. By 1856 additional ditches and canals were developed throughout El Dorado County which helped establish El Dorado County's booming agriculture industry, known today for producing high numbers of apples, grapes, and wine.

To support population growth and the expanding agriculture, water purveyors formed in El Dorado County during the 20th century to sustain the water resources needs. EID was the first water purveyor to form in 1925 to secure water supplies, protect water filings and provide irrigation water at reasonable rates⁵. In 1938 and in 1950 the TCPUD and the STPUD formed respectively under the California Public Utility Act. In 1946 GDPUD formed and in 1959 EDCWA formed. The GFCSD was the last water purveyor that formed in 1987. In the midst of water purveyor formation, the Central Valley Project (CVP) initiated in the 1930's to store and distribute water to Sacramento Counties, the San Joaquin Valley, Contract Costa, and Santa Clara. Through the CVP Shasta Dam was completed in 1943 and Folsom Dam was complete in 1955.



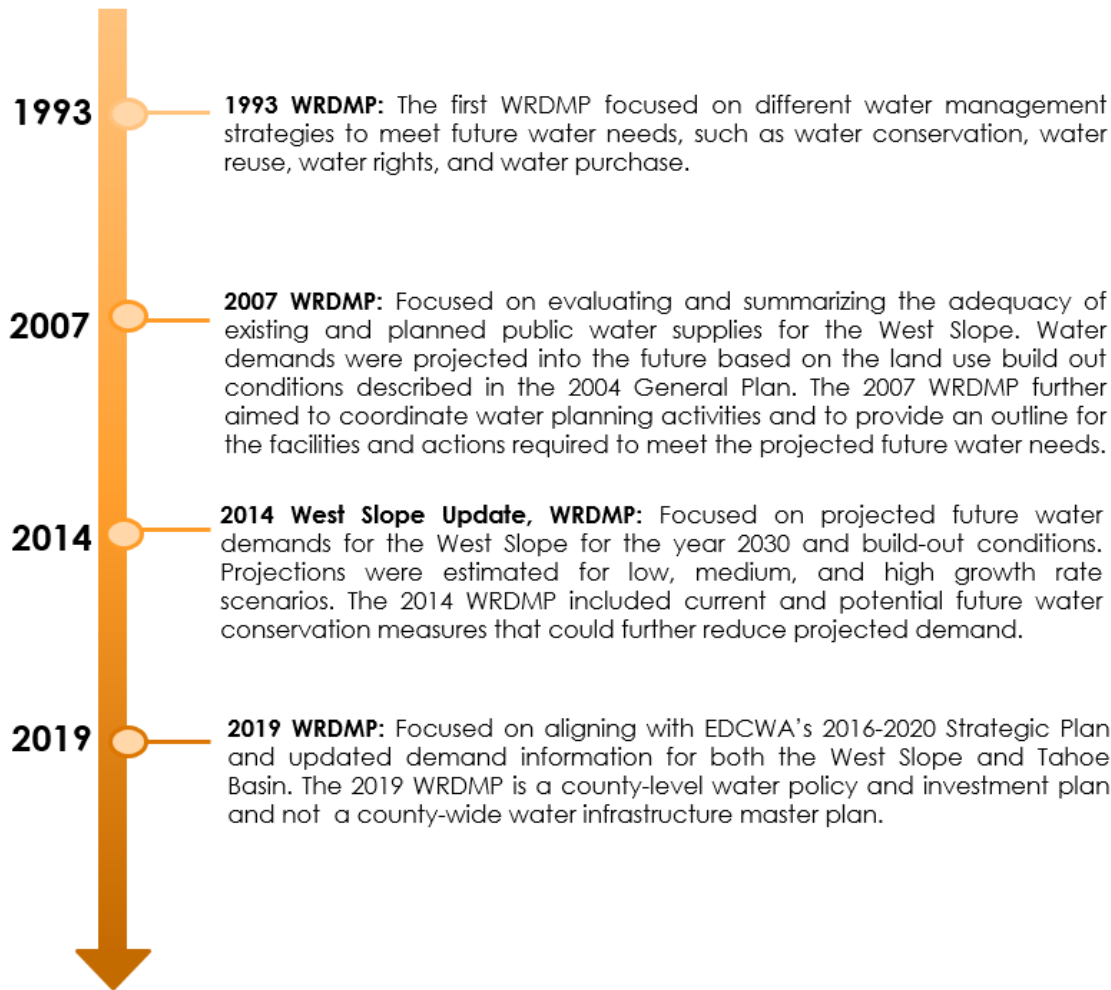
³ <https://www.britannica.com/biography/John-Sutter>

⁴ <http://museum.edcgov.us/for-kids/the-california-gold-rush>

⁵ <https://www.eid.org/about-us/district-information/history>

1.2 Water Resources Development and Management Plan

Three previous iterations of the WRDMP have been developed. The previous iterations were infrastructure investment plans that did not meet EDCWA's charge and did not cover the needs of the Tahoe Basin.



1.3 El Dorado County Water Agency Charges



The 1959 El Dorado County Water Agency Act gives EDCWA broad authority to provide water for all beneficial uses in El Dorado County including power development and flood control. EDCWA's mission is to "ensure that El Dorado County has adequate water for today and in the future." Therefore, EDCWA is charged to develop a countywide water plan and participate in statewide water planning. In developing the countywide water plan to ensure adequate water supply available to support land use approvals, EDCWA collaborates with EID, GDPUD, GFCS, STPUD, TCPUD, and the City of Placerville. EDCWA also represents the unrepresented areas found outside the service area of the water purveyors listed.

EDCWA may also negotiate contracts for water management and facility construction with the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), the California Department of Water Resources (DWR), local agencies, state agencies and federal agencies⁶.

EDCWA Responsibilities

- Advocating for the water interests of El Dorado County
- Protecting the existing water rights of water purveyors
- Pursuing water supplies for future needs through water right acquisition and water storage projects
- Providing education to the public, industry leaders, and government on the water conservation and water use efficiency
- Obtaining grants and other funding opportunities

EDCWA Supports

- Defends water rights
- Provides cost sharing funds for water supply projects
- Supports agricultural lands for benefit of water supply and quality
- Assists with groundwater supply and reliability in rural areas
- Supports the U.S. Forest Service management of public lands for water supply and quality
- Supports watershed improvements for benefit of water supply and quality
- Assists in local development and implementation of water-related ordinances
- Assists in local emergency preparedness

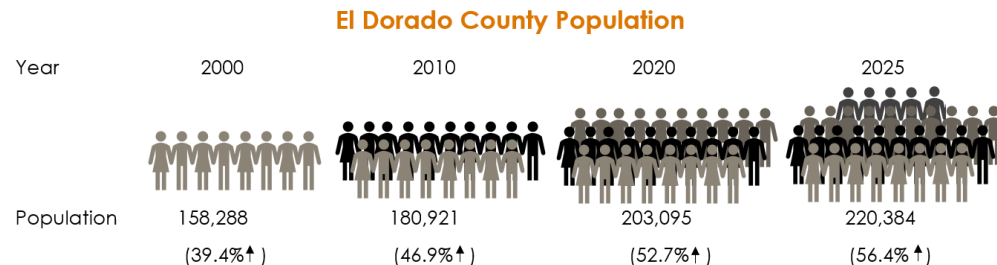
⁶ https://edcgov.us/Water/pages/who_we_are.aspx

1.4 El Dorado County General Plan

GENERAL PLAN

- 1) The General Plan includes all land use aspects and comprehensively defines a vision of the future land use development and preservation for El Dorado County. It also incorporates ideas from the Integrated Natural Resources Management Plan (INRMP). As a result, the General Plan reflects the overall El Dorado County vision and is therefore the highest guiding document for what is preserved and where development should go. Through the water management perspective, EDCWA can help facilitate the General Plan's vision.
- 2) The General Plan reflects a strong intention to balance the economic development interests in municipal and industrial (M&I) and agriculture, and environmental protections and preservation of the quality of life. This is done on a capacity level versus buildout to a horizon year. The current land use designation, General Plan policies, ordinances, and goals reflect such a consideration.
- 3) The General Plan identifies many provisions and ordinances to guide the economic development to ensure a vibrant agriculture economy to support the General Plan vision.

The El Dorado County General Plan (General Plan) was adopted on July 19, 2004 and was last amended on September 25, 2018. It supports El Dorado County's growth by maintaining the rural character and quality of the living environment, conserves agricultural land while providing the necessary infrastructure, conserves forest and woodlands, and other natural resources.



Source: 2004 El Dorado County General Plan

Notes:

Percent increase is from the year 1990.

The General Plan demonstrates that the population in El Dorado County increased by 47% from 1990 to 2010 and is projected to increase by 56% by the year 2025.

The increase in population will encourage the development in El Dorado County but development could be limited as a result of water availability. The existing water purveyors may not have the adequate infrastructure to support increasing development in El Dorado County. In order to realize the vision of the General Plan, EDCWA can work with the County and water purveyors to meet future water demands and secure water supplies. In preparation for the future, the water purveyors are involved in an infrastructure planning process to secure water availability in their service area.

1.5 2019 Water Resources Development and Management Plan

The 2019 WRDMP update focuses on preserving the long-term water supply and economic prosperity in El Dorado County. It addresses the changed conditions in El Dorado County related to water needs in both the Tahoe Basin and the West Slope and other resource management strategies, consistent with the authority and policies reflected in EDCWA’s mission statement and adopted 2016-2020 Strategic Plan.

EDCWA’s focus and directive is highlighted in the 2019 WRDMP. According to the 1959 Water Agency Act, EDCWA’s authority is broad but EDCWA’s 2016-2020 Strategic Plan clearly outlines EDCWA’s intention of engaging in water management issues in El Dorado County. EDCWA focus is on countywide collective interests and representation in the regional, statewide, and federal interface. Additional focus will occur in alignment with the County on land use and other resource management strategies related to facilitating the implementation of El Dorado County’s General Plan vision.

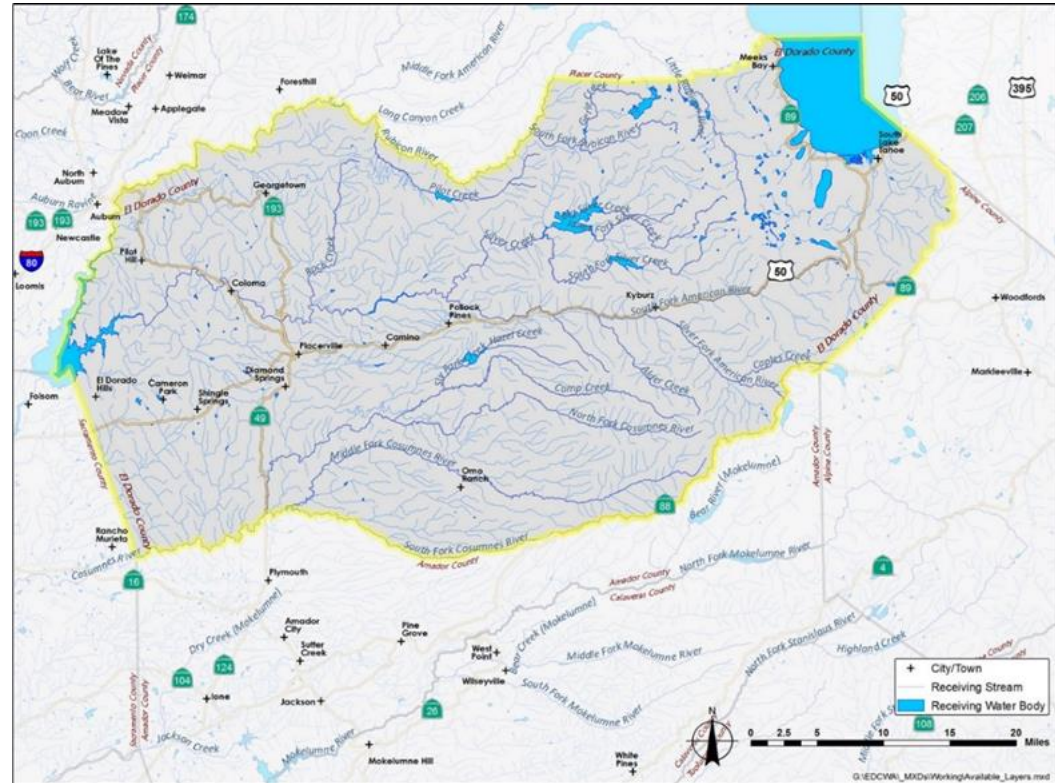


Figure 1. El Dorado County

Since the adoption of EDCWA’s 2012-2016 Strategic Plan, EDCWA’s commitment to water management issues in El Dorado County has been supported by EDCWA’s collaboration with Federal and State agencies on countywide issues that have long-term opportunities and benefits. In 2017 EDCWA took the role as the Groundwater Sustainability Agency for the Tahoe Valley South Groundwater Basin. In 2018, EDCWA completed a Stormwater Resources Plan for the West Slope in partnership with City of Placerville and the County, in collaboration with several other local and federal agencies to provide an integrated tool for stormwater elements that are customized for El Dorado County’s diverse and large foothill setting.

1.5.1 El Dorado County Water Agency Expected Outcomes

Led by EDCWA, the 2019 WRDMP was developed through a collaborative approach involving the formation of an advisory group and special topic groups that were strategically formed to provide key feedback, information, and input. The outcome resulted in a comprehensive plan that provides direction to EDCWA's future investments on all aspects of water resources development and management that will enhance the benefits for West Slope and the Tahoe Basin, while simultaneously conforming to its roles and responsibilities. As a result, the following goals are expected to be achieved by EDCWA.

EDCWA Goals

- Facilitate the implementation of the General Plan for countywide economic development and resource stewardship.
- Affirm EDCWA's role, responsibility, and focus in water management issues in El Dorado County.
- Address changed conditions in El Dorado County related to water needs and other resource management strategies, consistent with the role and responsibilities of EDCWA and the focus of its 2016-2020 Strategic Plan.
- Reflect the improved understanding of effects of climate change as well as the changes in California law, regulations, policies, and practices related to water resource management after the historic drought from 2012-2016.
- Promote dialogue and mutual understanding among local government entities, stakeholders, and the public regarding EDCWA's priorities and focus of water resources development and management.
- Institute a 5-year update cycle for the WRDMP to promote adaptive management and continued review of the General Plan implementation, and to streamline the preparation of the countywide water plan to support the El Dorado County's near-term land use decisions.
- Promote transparency.

2 Current Water Management in El Dorado County

“EDCWA will protect existing water rights and pursue the necessary water supplies to serve future needs of El Dorado County.”

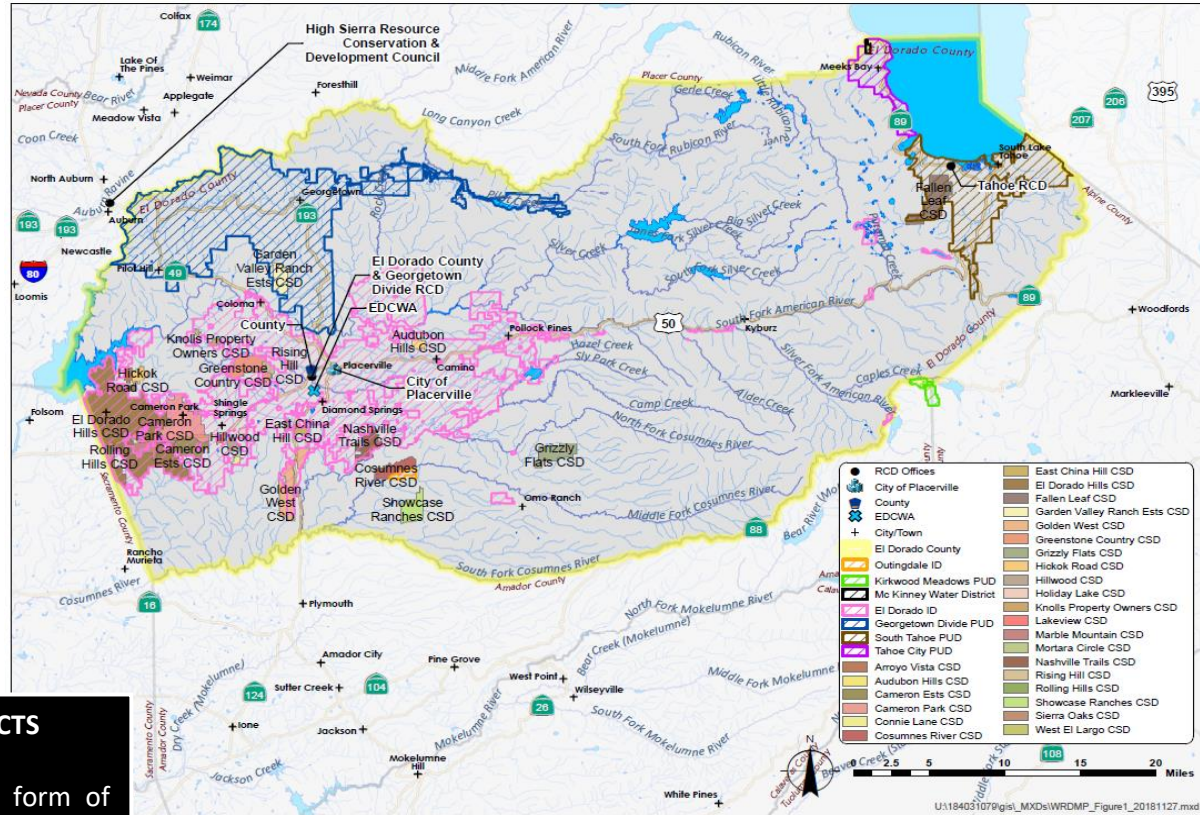
-EDCWA, 2016-2020 Revised Strategic Plan



2.1 Water Management Agencies

El Dorado County contains several agencies that provide water management services. Figure 2 demonstrates where these agencies are located or their service area. The main location of the County offices is presented, in addition to the location of the resource conservation districts involved in El Dorado County, the City of Placerville, EDCWA, the service area of the water purveyors and the community services districts.

The following two pages describe the water management services available in El Dorado County in addition to the specific services each agency provides in relationship to water management.



COMMUNITY SERVICES DISTRICTS

Community Services Districts are a form of independent local government used to provide services in unincorporated areas of a county⁵.

Figure 2. Water Management Agencies in El Dorado County

⁷ <https://www.california-taxdata.com/pdf/csd.pdf>

WATER MANAGEMENT SERVICES AVAILABLE IN EL DORADO COUNTY



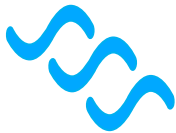
WATER SUPPLY

Provides surface water or groundwater supplies for municipal, industrial, and or agricultural demands.



WATER QUALITY MANAGEMENT

Runs a water quality program, implements a plan that improves water quality, and or implements a plan that prevents water quality degradation.



FLOOD MANAGEMENT

Implements flood management actions that reduce runoff rates or volumes of water.



WATERSHED MANAGEMENT

Performs headwater management, maintains parks, provides watershed management, and or provides fire protection.



RECYCLED WATER

Collects wastewater to treat and provide recycled water for landscape irrigation.



STORMWATER MANAGEMENT

Runs a stormwater management program, implements a stormwater resource plan, and or implements a stormwater management plan.











WATER TREATMENT

Obtains groundwater or surface water to treat and distribute for potable water use.



WASTEWATER TREATMENT

Collects and treats wastewater for treatment and discharge.

SERVICES	WATER MANAGEMENT AGENCIES																		
	EID	GDPUD	GFCSD	STPUD	TCPUD	Outingdale ID	Kirkwood Meadows PUD	McKinney WD	Tahoe RCD	El Dorado County RCD	Georgetown Divide RCD	High Sierra Resource Conservation and Development Council	EDCWA	City of Placerville County	Arroyo Vista CSD	Audubon Hill CSD	Cameron Estates CSD	Cameron Park CSD	Connie Lane CSD
	✓	✓	✓	✓	✓	✓	✓	✓						✓					
									✓						✓				
													✓	✓	✓				
									✓	✓	✓	✓						✓	
	✓																		
									✓	✓	✓		✓	✓	✓				
	✓	✓	✓																
	✓			✓										✓					

Key:

CSD = Community Service District
EDCWA = El Dorado County Water Agency

EID = El Dorado Irrigation District
GDPUD = Georgetown Divide Public Utility District

GFCSD = Grizzly Flats Community Services District
ID = Irrigation District

PUD = Public Utility District
RCD = Resource Conservation District

WATER MANAGEMENT AGENCIES

Cosumnes River CSD	East China Hill CSD	El Dorado Hills CSD	Fallen Leaf CSD	Garden Valley Ranch Estates CSD	Golden West CSD	Greenstone Country CSD	Hickok Road CSD	Hillwood CSD	Holiday Lake CSD	Knolls Property Owners CSD	Lakeview CSD	Marble Mountain CSD	Mortara Circle CSD	Nashville Trails CSD	Rising Hill CSD	Rolling Hills CSD	Showcase Ranches CSD	Sierra Oaks CSD	West El Largo CSD
						✓													
					✓	✓					✓				✓	✓			
✓		✓	✓			✓			✓							✓	✓		
						✓													

STPUD = South Tahoe Public Utility District WD = District
 TCPUD = Tahoe City Public Utility District

2.1.1 Water Service Areas

The following pages provide a description of the water service areas found in El Dorado County. Majority of the populated areas will obtain water supplies from EID, the City of Placerville, GDPUD, GFCSD, STPUD, or TCPUD. For the underrepresented area found outside a water purveyor’s service area, residents rely on private groundwater wells. The service area of the water purveyors found in El Dorado County is shown in Figure 3.

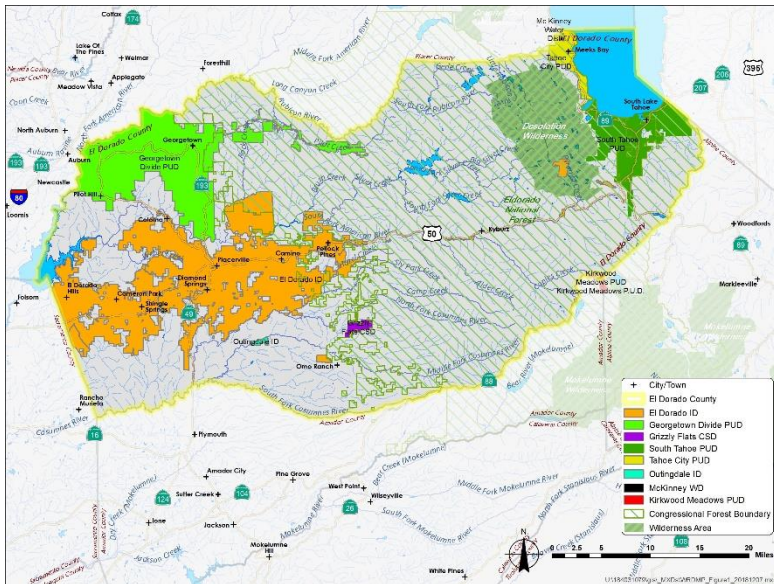


Figure 3. Water Purveyors in El Dorado County

⁸ <https://www.eid.org>

⁹ <https://www.eid.org/home/showdocument?id=5666>

El Dorado Irrigation District^{9,10}

FORMATION	SERVICE AREA	Annual Water Supply
1925	> 220 mi ²	108,190 AF

SERVICES PROVIDED



Water Supplies

- Municipal
- Industrial
- Agriculture



Recycled Water

- Deer Creek WWTF
- El Dorado Hills



Water Treatment

- El Dorado Hills WTP
- Forebay WTP
- Outingdale WTP
- Sly Park WTP



Wastewater Treatment

- Deer Creek WWTF
- El Dorado WWTF
- Rancho Ponderosa WWTF
- Camino Heights WWTP

*Hydroelectric power is also generated

Surface water from **Jenkinson Lake Reservoir**, and Project 184, which includes **Echo, Aloha, Caples, Silver Lakes** and contracts for water from **Folsom Lake**

- West Slope including
 - City of Placerville
 - Strawberry
 - Outingdale



City of Placerville¹¹

FORMATION
1854

SERVICE AREA
5.8 mi²

Annual Water Supply
1,200 AF

SERVICES PROVIDED



Water Supplies

- Municipal
- Industrial



Wastewater Treatment

- Hangtown Creek WWTP

Surface water
from EID

City of
Placerville



Georgetown Divide Public Utility District¹²

FORMATION
1946

SERVICE AREA
112 mi²

Annual Water Supply
12,200 AF

SERVICES PROVIDED



Water Supplies

- Municipal
- Industrial
- Agriculture



Water Treatment

- Auburn Lake Trails WTP
- Lake Walton WTP

Surface water from
Stumpy Meadows Reservoir

- Georgetown
- Buckeye
- Garden Valley
- Kelsey
- Spanish Dry Diggins
- Greenwood
- Cool
- Pilot Hill



¹⁰ <https://www.eid.org>

¹¹ <https://www.gd-pud.org/>

Grizzly Flats Community Services District¹³

FORMATION 1987	SERVICE AREA 2.7 mi ²	Annual Water Supply 141 AF
--------------------------	--------------------------------------------	--------------------------------------

SERVICES PROVIDED



Water Supplies

- Municipal
- Industrial



Water Treatment

- Grizzly Flat WTP

Surface water from
**North Canyon
Creek and Big
Canyon Creek**

Grizzly Flats
Community Services
District



South Tahoe Public Utility District¹⁴

FORMATION 1950	SERVICE AREA 42.2 mi ²	Annual Water Supply 5,241 AF
--------------------------	---------------------------------------------	----------------------------------------

SERVICES PROVIDED



Water Supplies

- Municipal
- Industrial



Wastewater Treatment

- South Tahoe WWTF

Groundwater from
**Tahoe Valley
Groundwater Basin**

- City of South Lake Tahoe
- Unincorporated Communities
 - Montgomery Estates
 - Tahoe Paradise
 - Meyers
 - Angora Highlands
 - Fallen Leaf Lake
 - Christmas Valley



¹²http://grizzlyflatscsd.com/?page_id=2

¹³ <http://stpud.us/asset/?id=4731>

Tahoe City Public Utility District^{15, 16}

FORMATION
1938

SERVICE AREA
> 31 mi²

Annual Water Supply
1,028 AF


SERVICES PROVIDED



Water Supplies

- Municipal
- Industrial

Groundwater
from **9 wells** and
1 spring well

- Tahoe City Main
 - Rubicon
 - McKinney/Quail
 - Alpine Peaks
 - Tahoe-Truckee Forest Tract
- 

Underrepresented Area

FORMATION
NA

SERVICE AREA
Outside water purveyor service area in EL Dorado County

Annual Water Supply
NA

SERVICES PROVIDED



Water Supplies

- Municipal
- Industrial
- Agriculture

Shallow Groundwater from private wells

West Slope



Groundwater from Tahoe Valley Groundwater Basin private wells

Tahoe Basin



¹⁴<https://www.tcpud.org/about-us>

¹⁵ <https://www.tcpud.org/sites/default/files/documents/uwmp.pdf>

2.1.2 West Slope-Major Findings



Cities

The West Slope is located west of the Sierra Nevada Continental Divide and excludes the Lake Tahoe watershed. The only incorporated city in the West Slope is Placerville, with the remainder of the population living mostly in towns and community service districts.



Diverse Land Use

The West Slope is characterized by having an urban, rural and, agricultural setting with about half of the area lying in Eldorado National Forest.



Recycled Water

The West Slope contains access to recycled water supplies from EID. EID has two treatment plants that produce more than 900 MG of recycled water, used for landscape irrigation in El Dorado Hills¹⁷.



Surface Water or Shallow Groundwater Use

Given that half of the West Slope lies in Eldorado National Forest, most of the West Slope meets its municipal, industrial, and agricultural water demands from surface water provided from EID, GFCSD and GDPUD. For the fraction of the West Slope that is outside a service area water supplies are obtained from shallow groundwater wells. Additional groundwater supplies cannot be obtained as there are no groundwater basins in the West Slope.



Stormwater Management

Regarding stormwater, the West Slope contains a SWMP and SWRP (Section 4.5).

¹⁶ <https://www.eid.org/our-services/recycled-water>

2.1.3 Tahoe Basin- Major Findings



Cities

The Tahoe Basin is located to the east of the Sierra Nevada Continental Divide and includes the largest city in El Dorado County, the City of South Lake Tahoe with a population of 21,978¹⁸.



Diverse Land Use

The Tahoe Basin has a rural and urban setting that attracts tourists who wish to visit Lake Tahoe, the largest alpine Lake in North America.



Recycled Water

The Tahoe Basin is predominately groundwater dependent and does not count with recycled water sources.



Surface Water or Shallow Groundwater Use

Majority of the Tahoe Basin meets its municipal and industrial water demands with the groundwater supplies provided by STPUD and TCPUD. For the residents located outside a service area they will rely on private groundwater wells that pump water from either the Tahoe Valley Groundwater Basin, Tahoe South Subbasin located on the southern end of the Tahoe Basin or the Tahoe Valley Groundwater Basin, Tahoe West Subbasin located on the northern end of the Tahoe Basin.



Stormwater Management

Regarding stormwater, the Tahoe Basin contains a SWMP and SWRP (Section 4.5).

¹⁷<https://www.census.gov/quickfacts/fact/table/southlaketahoecitycalifornia,camppendletonnorthcdpcalifornia,twentyninepalmscitycalifornia,bloomingtoncdpcalifornia,ontariocitycalifornia/PST045>
217

2.1.4 Resource Conservation Districts

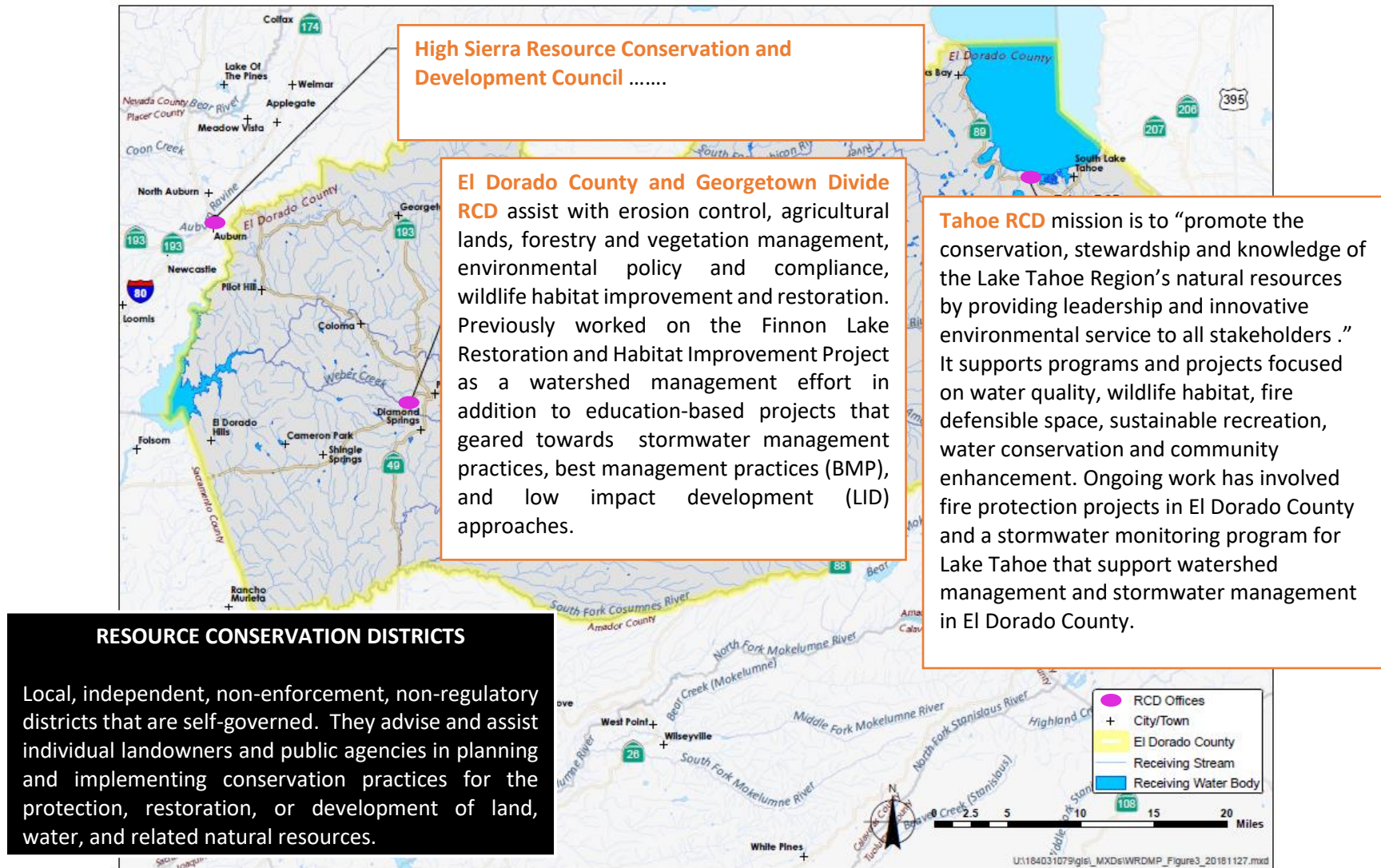


Figure 4. Resource Conservations Districts in El Dorado County

2.1.5 Major Water Facilities

Major water facilities in El Dorado County include the surface water resources from which water purveyors such as EID, GFCSD, and GDPUD obtain water supplies in addition to the water treatment facilities owned by the water purveyors to treat surface water for potable use. Figure 5 shows the water resources from which EID, GFCSD, and GDPUD obtain surface water. The water treatment plants owned by EID, GFCSD and GDPUD are also identified.

Additional water facilities not included in Figure 5 are found along the border of El Dorado County that include the Sacramento Municipal Utility District (SMUD) facilities located on the South Fork and Middle Fork of the American River, the American River Pump Station on the North Fork American River owned by Placer County Water Agency, and the Folsom Lake Intake and Pump Station owned by EID¹⁸.

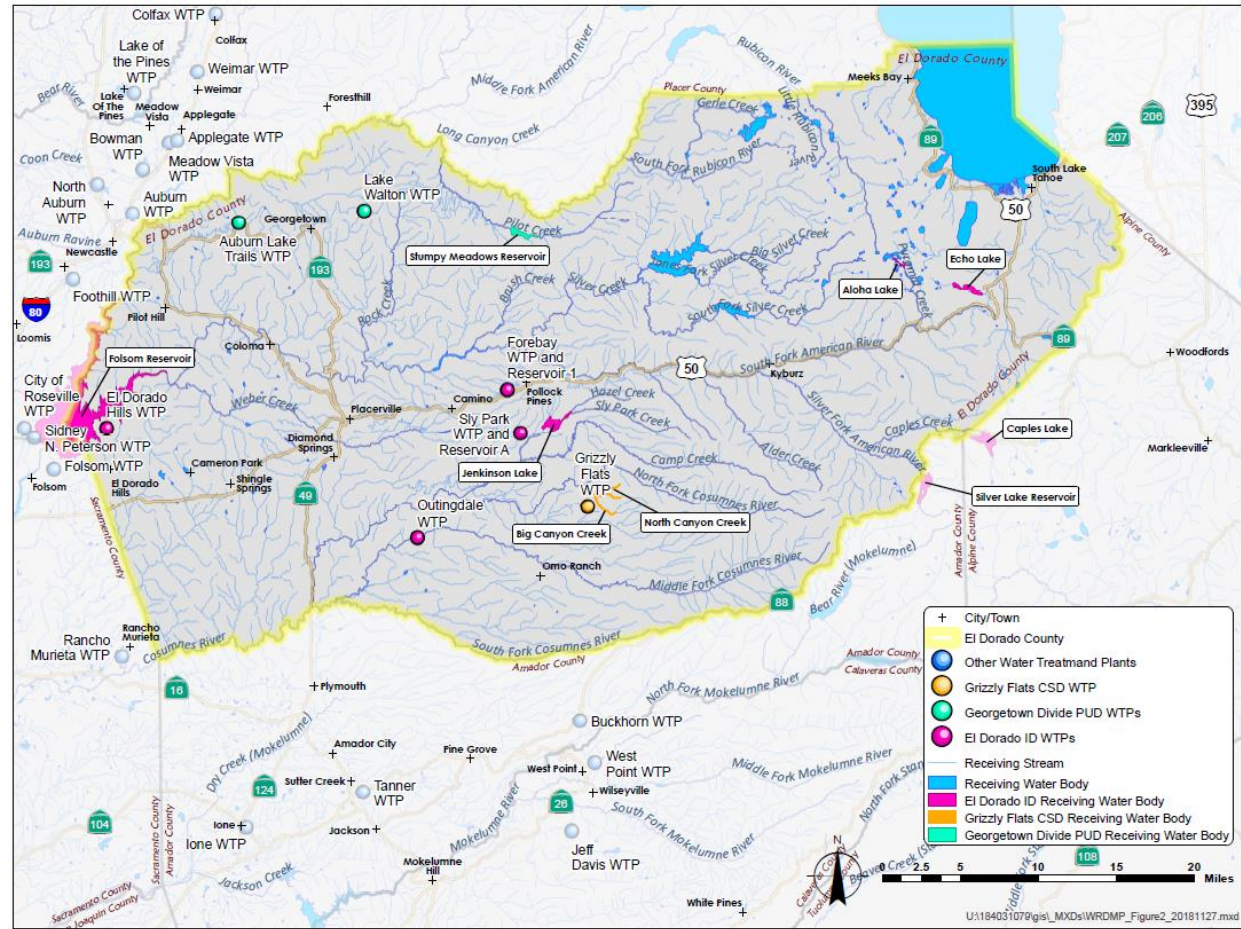


Figure 5. Major Water Facilities in El Dorado County

¹⁸ <https://www.edcgov.us/waterpowerauthority/Documents/El%20Dorado%20Water%20Reliability%20Project%20EIR%20Scoping%20Meeting%20Presentation.pdf>

2.1.6 Protected Watersheds

According to the protected area database and the National Conservation Easement Database Non-governmental organizations (NGOs), State and Federal agencies preserve and manage land in El Dorado County. The NGOs protect private conservation land such as Brush Creek Ranch and Wild Oaks Park. The Federal agencies protect land such as Eldorado National Forest and the Lake Tahoe Basin Management Unit, whereas the State agencies will protect areas such as Pine Hill Ecological Reserve and the Marshall Gold Discovery State Historic Park. The protection of this land directly relates with the General Plan vision and supports the Conservation and Open Space Element in addition to the Land Use Element.

Under the General Plan's Open Space Element it provides for the protection of El Dorado County's existing natural resources and open space, including agricultural and forest soils, mineral deposits, water and native plants, fish, wildlife species and habitat, and federally classified wilderness areas. The protection of this land by NGOs, State and Federal agencies preserve resources of significant biological, ecological, historical or cultural importance. The Conservation and Open Space Element of the General Plan includes a set of goals, objectives, and policies on conservation and protection of water resources. The main objective is to preserve and protect water supply and quality of the water resources by establishing water conservation programs and allowing the use of recycled water. Another objective is to maintain water quality by minimizing erosion and other methods.

The protection of land in El Dorado County is also supported by the General Plan's Land Use Element that provides protection for the environment through land use designations and distribution of uses which places higher density uses where they are most appropriate. The element also provides for overlays to protect land in use as or suitable for ecological preserves and important biological corridors. Figure 6 demonstrates the land protected in El Dorado County by an NGO, a State or Federal agency.



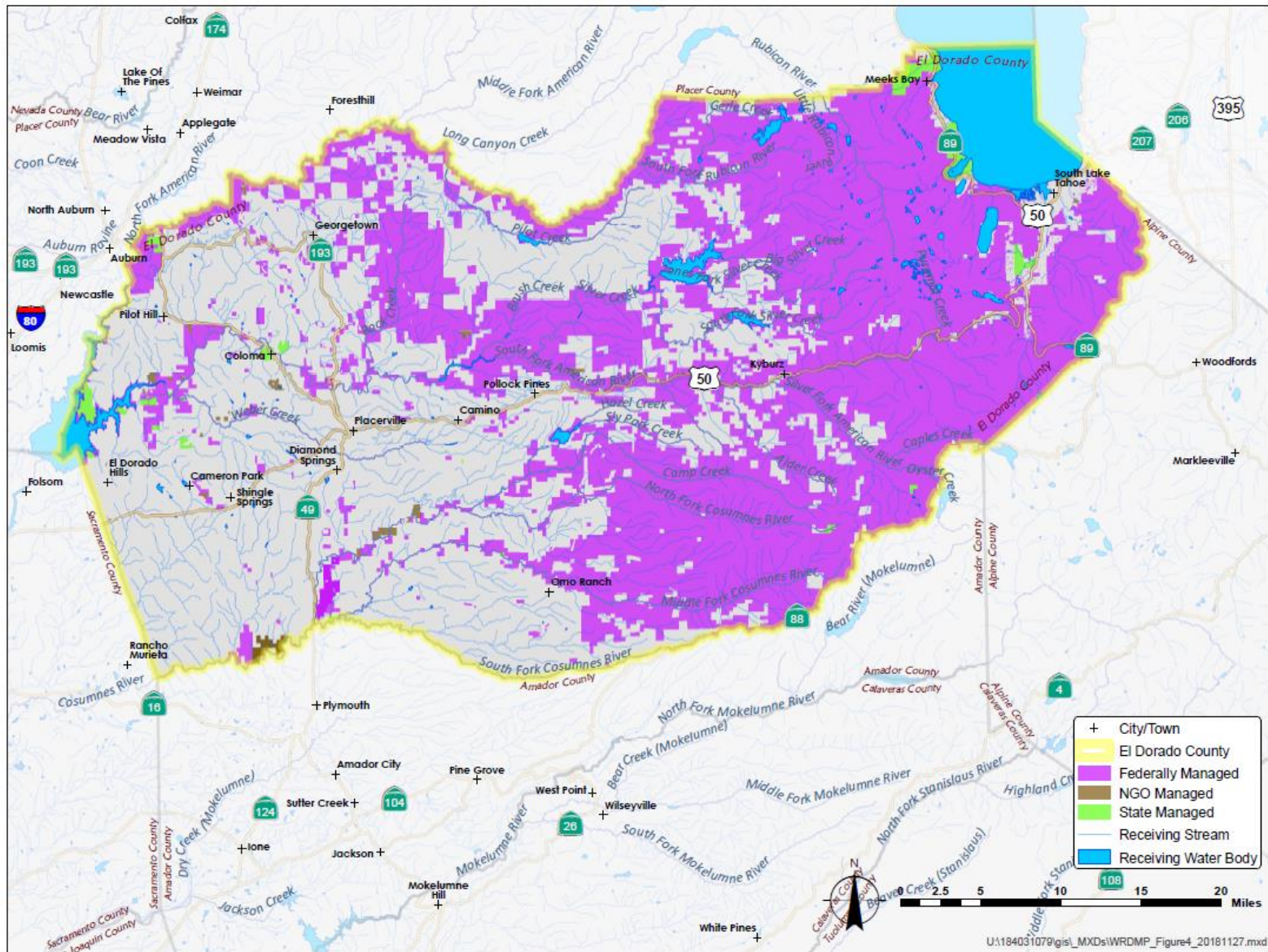


Figure 6. Protected Watersheds in El Dorado County by NGO, State and Federal Agencies

3 Challenges Ahead



“EDCWA will support watershed improvement for benefit of water supply and quality.”

-EDCWA

¹⁹ Image by Amy Phillips, County of El Dorado

3.1 Challenges in El Dorado County

- Story components (list)

3.1.1 Climate Change

- Context: climate change

3.1.2 Changing Regulatory Environment

- Context: changing regulatory environment (key point: this always will continue to happen)

3.1.3 Challenges and Problems

- Categories of challenges/problems
 - Inter-relation
 - Continued investment

3.2 Challenge 1: Supply-Demand Imbalance

- Under climate change; long-term
 - Graphic: planning horizon: 2040, UWMP, 2100 (CC)
- Technical study, indicators, pie chart
- Additional supply-demand imbalance
 - Ranges of projection, scenario planning, graphic
- Scenario Planning
 - Climate, conservation, growth, etc
 - Graphic

3.3 Challenge 2: Drought Protection

- imbalance under extreme conditions
- Event-based protection
- Unrepresented area drought numbers

3.4 Challenge 3: Vulnerable Small Systems and Rural Communities

- Small system hardships – during droughts there are threats from water quality impacts from septic tanks; human right to water

3.5 Challenge 4: Forest Fires

- Safety, water quality, etc. impacts
 - Fire background: historical trend, cause (e.g., utility lines), change; insert of partners (USGS...)

3.6 Challenge 5: Headwater

- Restoration? Protection of what? Cabins?
- Connection with forest fires and water infiltration and tourism/vacation use

3.7 Challenge 6: Flooding

- localized

3.8 Challenge 7: Quality of life

(recreation?)

3.9 Challenge 8: Groundwater

- None on West Slope; shallow groundwater (septic tank potential interaction)
- Septic tank map – potential for contamination
- Tahoe-side groundwater

3.10 Challenge 9: Water Quality

- Wastewater discharge, Impacted water, 303(d)

3.11 Challenges Summary

- Graphic: Map pointing where challenges are & little summary blurbs
- Infographic: summary

4 Resource Management Strategy



“EDCWA will work with community groups, Resource Conservation Districts and other agencies to achieve watershed improvements for benefit of water supply and quality.”

-EDCWA, 2016-2020 Revised Strategic Plan

²⁰ Image by: Brendan Ferry, County of El Dorado

4.1 Overview (EDCWA's investment)

- How
 - Strategy fits its roles/responsibilities
 - Collaborative development & implementation of strategy
- Scope Stay with EDCWA – this is not for each agency; focus on EDCWA as playing either a lead or support role, pending the topic
- Stakeholder group; outreach summary & structure; multiple benefits

4.2 More Water at Higher Elevations and Less Flood

(Agency LEAD)

- EDWRP, Alder Creek, Fazio
- Benefits: supply-demand imbalance, drought protection, serve ag, etc.

4.3 Demand Management

(Agency SUPPORT)

- M&I, ag
- Actions: conservation incentive, regional progress, redo service areas (ag)

4.4 Fuel Management

(Agency LEAD/SUPPORT)

- Includes meadow restoration
- State/federal grant organizations, lead to talk to Forest Service, RCF implementation, powerline, prioritization with RCD's, private properties

4.5 Stormwater

- Describe
- Cameron Park issue
- Funding support

4.6 Countywide Drought Plan

- HMP
- Drought Framework/task force

4.7 Serving Agriculture

- Ag development
 - Healthy/vibrant ag curbs urban encroachments, preserving quality of life (consistent with the General Plan)
- Direction
 - High-value crops (vineyard, orchards)
 - Agro-tourism (Apple Hill, wineries)
- Market supported?
 - Build it and people will pay
 - Reference a willingness to pay study
- Potential level of development? Based on:
 - Soil conditions, etc.
 - Water availability (quantity)
 - Infrastructure cost/plan
- Benefit/Cost Analysis
- Climate Change Influence
 - Increased Willingness to Pay
 - No change to physical wrd.
 - Decreased Water Availability
- EID ->GFCSD

4.8 Groundwater Protection

- GSA in Tahoe, septic tank strategy

4.9 Align with Reclamation

- Align with some agencies
- ARBS, Water Marketing Strategy
- Business/political enagements

5 Implementation

“EDCWA will build an organization that is efficient, cost-effective, transparent, and adaptive to change.”

-EDCWA, 2016-2020 Revised Strategic Plan



²¹ Image by: Brendan Ferry, County of El Dorado

5.1 EDCWA Programs, including updates

- Major projects, schedule, cost

5.2 Funding Strategy

- Implementation roles
- Map and statistics

2019 Water Resources Development and Management Plan Plan Advisory Group Specific Questions

The following are a series of questions to consider when anticipated to review the content of the 2019 Water Resources Development and Management Plan (WRDMP).

- With the current content and placeholders in the draft 2019 WRDMP, does the current draft content and focus match the reviewed purpose and intention?
- What information may be more useful than what we have identified and incorporated in the draft 2019 WRDMP?
- What information maybe helpful to highlight for each water purveyor and the underrepresented area?
- Are there any additional challenges in El Dorado County that should be highlighted/discussed in Section 3?
- How is the High Sierra Resource Conservation and Development Council involved in El Dorado County? What types of projects does it oversee in El Dorado County (watershed and stormwater management)?