EL DORADO COUNTY WATER AGENCY

Water Resources Development and Management Plan (December 2007)

2014 West Slope Update

November 2014

Prepared by
El Dorado County Water Agency

with support from
Atkins North America, Inc.

And

MADDAUS WATER MANAGEMENT

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Executive Summary

The El Dorado County Water Agency Act [Stats. 1959, c. 2139, p. 5084, and codified as Chapter 96 of the California Water Code Appendices] (Act) created the El Dorado County Water Agency (EDCWA and/or Water Agency) in 1959. Section 96-11 of the Act authorizes the Water Agency to do "…any and every lawful act necessary in order that sufficient water may be available for any present or future beneficial use or uses of the lands or inhabitants" of El Dorado County (County). To enable the Water Agency to discharge this responsibility, Section 96-17 of the Act authorizes the Water Agency to make technical and other necessary investigations, measurements, data collection and make studies and analyses pertaining to water supply and uses of water in the County.

With the adoption of the voter approved 2004 General Plan following two decades of rapid growth in the county, the Water Agency began the preparation of its 2007 Water Resources Development and Management Plan (2007 WRDMP). The 2007 WRDMP examined and summarized the adequacy of existing and planned future public water supplies of the County, including its West Slope region, to meet projected future demand, based on the land use densities (also known as "build out" conditions) in the 2004 General Plan. A stated goal of the 2007 WRDMP was to coordinate water planning activities within the West Slope and to provide a blueprint for actions and facilities that could be needed to meet those projected future water needs.

Since completion of the 2007 WRDMP, new information has become available, including:

- Recent water demand and supply reports
- Changes in recent development patterns
- Changes in future proposed land use
- Recent and proposed General Plan amendments
- Changes in actual and planned water purveyor service area (Service Area) boundaries
- Ongoing conservation efforts
- Two recent severe drought events (2007-2009 and 2012-present)
- A severe recession that temporarily depressed water use
- Further findings of climate change occurring within the Sierra Nevada watersheds of the American and Cosumnes Rivers

In addition, the State has adopted:

- New water conservation requirements for urban retail water suppliers (e.g., SB X7-7)
- New codes and regulations (i.e. CalGreen Building Codes)
- Guidance provided by California Department of Water Resources and other state agencies on planning for impacts due to climate change (http://www.climatechange.ca.gov/).

These requirements and the availability of new information provide a timely opportunity to update the water demand projections in the 2007 WRDMP. Also, the potential effects of climate change warrant consideration, including important public policy issues for long-range water resources planning, and the potential for substantive impacts to water demand and supply.

ES-1 REPORT ORGANIZATION AND ASSUMPTIONS

This report, the 2014 Update, is organized by the following chapters:

- Chapter 1: Background on the 2007 Water Resources Development Master Plan
- Chapter 2: New Information Developed Since the 2007 WRDMP
- Chapter 3: Assumptions for Water Demand Projections
- Chapter 4: Demand Projections
- Chapter 5: Water Use Efficiency
- Chapter 6: Water Supply Need
- Chapter 7: Conclusions
- Chapter 8: References
- Appendices with supplemental technical information

This 2014 Update includes projections of future water demand for West Slope water purveyors, for the year 2030 and build-out conditions, which were estimated for low, medium, and high growth rate scenarios. The 2030 timeframe is used to be consistent with other contemporaneous studies and reports, such as urban water management plans, which may be compared with the projections in this analysis. Build-out conditions, in which the maximum density of land uses permitted under the 2004 General Plan have been achieved, are also included. This update does not include a new land use analysis. Projections are based on 2004 General Plan and 2007 Floor Area Ratio (FAR) General Plan Amendment housing and employee/jobs projections (included in Appendix B and Appendix C) used for the 2007 WRDMP. Urban water demand factors are from recent studies prepared by each purveyor for its service area with appropriate adjustments to account for increased economic activity allowed under the General Plan.

This 2014 Update also includes a discussion of current and potential future water conservation measures that could be implemented to further reduce projected demand. Finally, a summary of each purveyor's water supply portfolio, which vary based on water year type, and a comparison with estimated future demand is presented to identify the potential need for additional water supplies.

As a foundation for the analysis of supplies and demands, a discussion of historic population growth rates, residential and commercial development levels, agricultural water use, groundwater reliability and water use efficiency is included to provide context for the assumptions made in this 2014 Update. Specifically: (1) long term historical growth rates support future growth rate assumptions; (2) projected increases in economic activity in the County may result in higher water use per capita at buildout conditions; (3) changing agricultural crop mix will affect agricultural water use; (4) ground water reliability will influence how development outside public water supply areas will occur; and (4) additional water use efficiency could reduce the long term, new water supply needs in the County .

ES 1.1 Growth Rates

Figure ES-1 provides historical population growth within El Dorado County as compared to average statewide growth. West Slope population growth compared to the county as a whole is also provided in **Figure ES-2.** As shown in Figure ES-1, El Dorado County has grown faster than the state average since 1980. For the 1980 to 2010 period El Dorado County population growth of 2.4% outpaced the California growth rate of 1.5% while the West Slope experienced higher average annual growth of 2.6% compared to the County as a whole. Higher West Slope growth rates can be attributed to governmental limits on the construction of new homes and gaming industry job losses in the Tahoe Basin, which is included in the El Dorado County total.

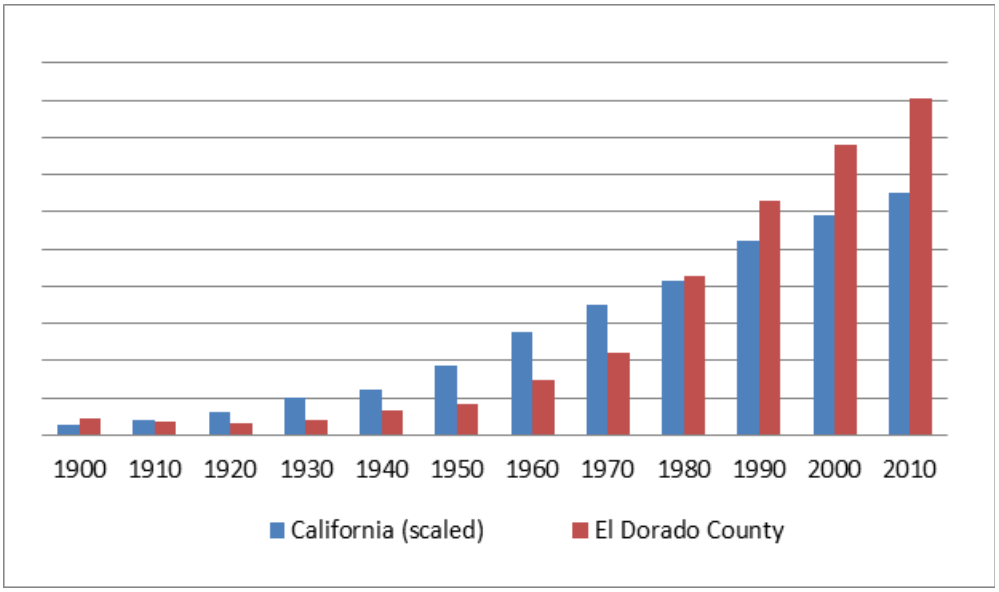

Figure ES-1 El Dorado County and California Population Growth
SOURCE: 2010 US Census (http://www.city-data.com/county/El_Dorado_County-CA.html)

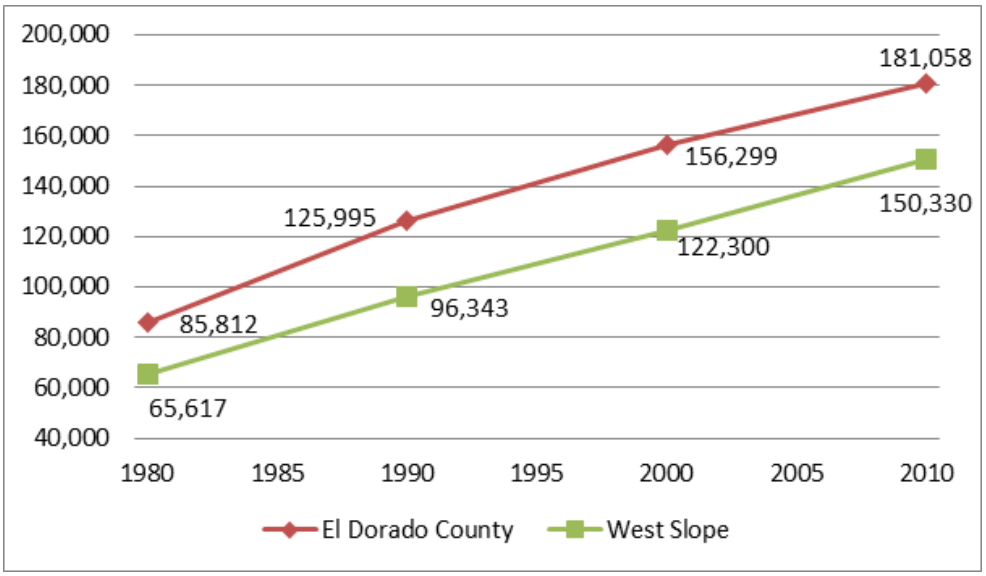

Figure ES-2 West Slope and El Dorado County Population Growth (1980-2010)

SOURCE: US Census (http://www.census.gov/population/cencounts/ca190090.txt)
West slope growth estimate: EDC (2014) bae worksheets, per Tracey Eden-Bishop, personal communication with N. Porter with El Dorado County (November 25, 2013) and EDC (2002) Land Use Forecast for Draft General Plan, Figure 4

ES 1.2 Economic Activity

According to the 2004 El Dorado County General Plan and 2007 Floor Area Ratio General Plan Amendment, more economic growth, as a percentage of residential growth, is projected under buildout conditions. Even though residential development has outpaced planned commercial development on the West Slope of the County over the past decade.

- **Baseline versus Buildout Potential:** Figure ES-3 shows the ratio of West Slope residential ("households") and commercial ("jobs") land uses in 1999 (2004 General Plan baseline year) and residential and potential commercial land uses allowed under the 2004 General Plan and the FAR General Plan Amendment at buildout. Figure ES-3 illustrates the shifting service area dynamics as water purveyors will be requested to serve more commercial water demand based on planned future development.

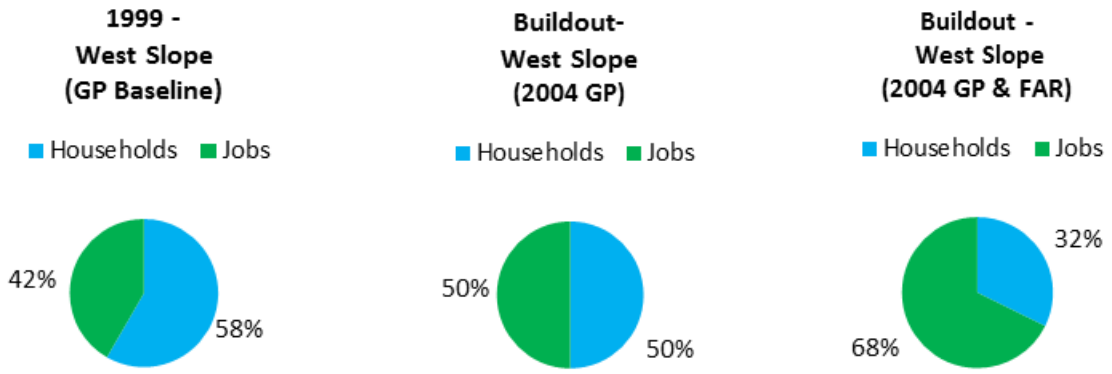

Figure ES-3 West Slope Baseline and Buildout Households versus Jobs

- **2010 versus Buildout Potential:** Estimated development levels in 2010 are represented in Figure ES-4. According to 2010 Census data and Sacramento Area Council of Governments (SACOG) 2010 housing and jobs data, West Slope housing was approximately 55% built-out in 2010 compared to 2004 General Plan buildout household projections. Commercial uses were approximately 32% built-out compared to the 2004 General Plan employee/jobs projections and 15% compared to the 2004 General Plan together with the 2007 FAR General Plan Amendment jobs projections.

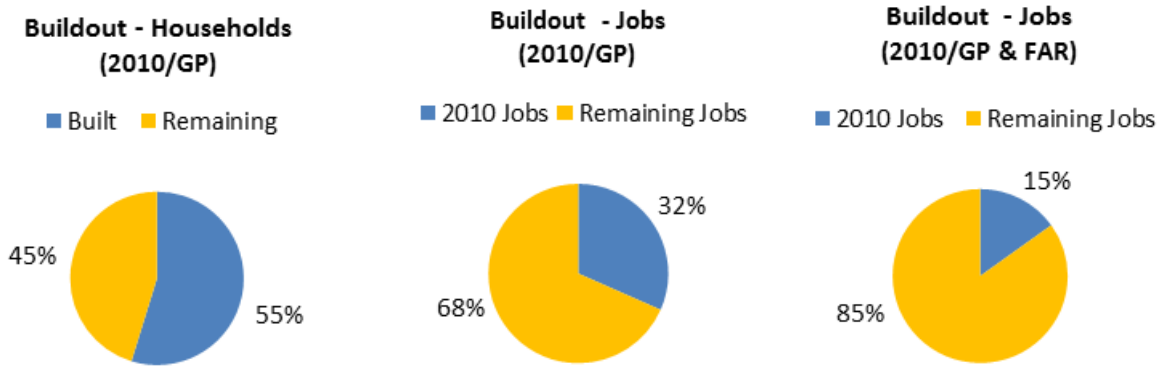

Figure ES-4 West Slope 2010 and Buildout Households and Potential Jobs
SOURCE: EDC (2014) bae March 14,2013 memorandum and worksheets, per Tracey Eden-Bishop personal communication with N. Porter with El Dorado County (November 25, 2013) and EDC (2002) Land Use Forecast for Draft General Plan, Figure 4

It is important to understand relative levels of household and commercial development over time because the State is using per capita water use as a metric in determining compliance with its SB X7-7 water conservation requirements. Urban per capita unit demand factors, a.k.a. gallons per day per capita (GPCD), are calculated by dividing gross water production (including distribution system water losses and all residential, commercial, industrial and institutional (CII) demand) by the total population over multiple years. While the urban water suppliers on the West Slope have plans in place to achieve their conservation goals in the short term (2020), GPCD will necessarily increase slowly over time as more planned economic activity develops within the County. The converse is also true. From Figures ES-3 and ES-4, between 1999 (the 2004 General Plan baseline and the approximate midpoint of the historic period used by EID and GDPUD to calculate GPCD) and 2010, residential development outpaced economic development. While other factors influenced reported water demand reductions during this period (i.e. recession, dry year conditions, rate increases, and rate restructuring), it should be noted that underlying shifts in residential and commercial land uses had the effect of adding more population, relative to jobs, in the near term.

It should be noted, the goal of SB X7-7 was not to curtail economic activity. The codification of the legislation captures the intent to allow for adjustments in GPCD. Water Code §10608.24(d)(1) specifically addresses increases in economic activity in the following manner.

> *"When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:…*
>
> *(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period."*

ES- 1.3 Agricultural Water Use

Agricultural land and water use in El Dorado County has varied over the last century based on crop mix, water availability and irrigation efficiency. Cultivated acreage in El Dorado County has long been supported with surface water supplies through both ditch systems paid for on a "miner's inch" basis and piped/ metered potable water systems. Ground water has been used to a less extent. Historically, irrigated acreage has been as high as 9,300 acres in 1975, and today there is approximately 5,300 acres under cultivation (up from 4,826 acres in 2000). The decline from 1975 is primarily a result of a decline in irrigated pasture.

El Dorado County was a major grape growing center from 1849 to 1904, with production of 60,000 gallons of wine reported in 1890. The 1890 economic depression, Prohibition, the Great Depression, and a phylloxera pest invasion in the 1930's drastically reduced vineyard acreage, with only a single vineyard reported in 1936. By 1948 there was almost 5,000 acres of deciduous orchard (primarily pears) under cultivation. After pear blight swept through the County, pear production dropped from 52,000 tons to 8,500 tons by 1965. In 1964, Apple Hill was conceived by local agricultural leaders to preserve agricultural lands from conversion to other land uses and a change in plantings to grapes and apples was set in motion. Grapes dominate the crop mix today. A shift away from grapes, however, may be underway as the effects of a new viral disease (red blotch) takes hold in the County. This outbreak could drastically reduce wine grape production, which in turn may result in a return to crops that require more potable water.

Figure ES-5 illustrates the change in County-wide crop mix since the turn of the twentieth century. Year 2000 crop mix is included because it is the baseline year for the 2004 General Plan inventory of cultivated land by water purveyor service area boundary and "Other County Areas" (OCA), which is the basis of this update.

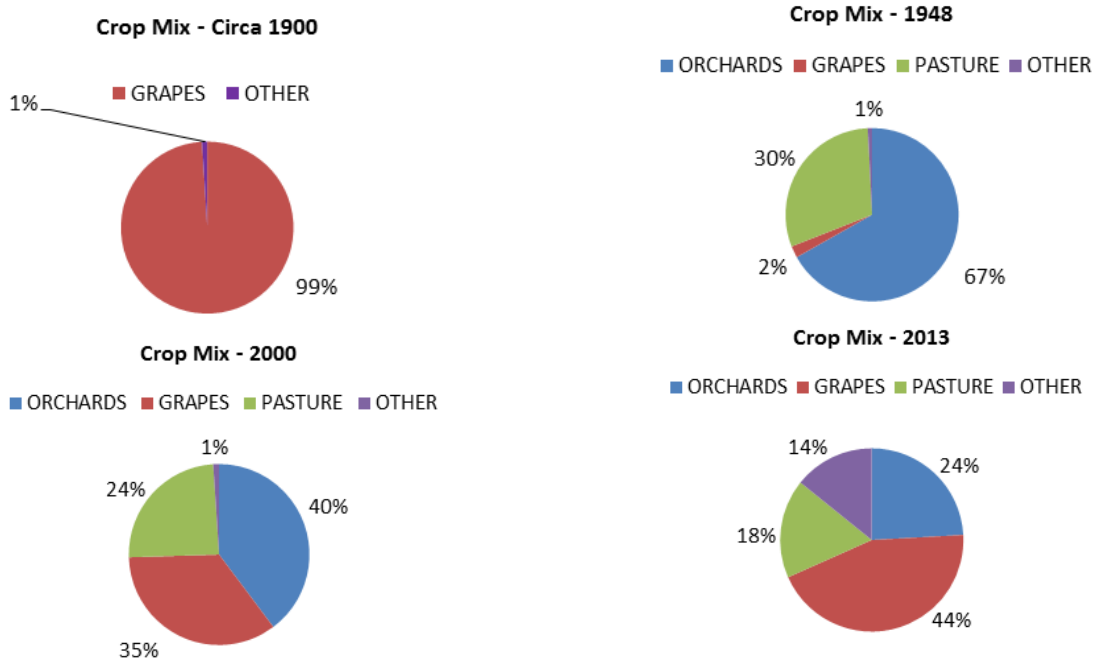

Figure ES-5 El Dorado County Crop Mix – Percent by Acreage
SOURCE: EDC (1948-2013) Agricultural Crop and Livestock Report
Costa (2010) History of Wine Making in El Dorado County

USDI (2008)

These dynamics make projecting future agricultural water demand challenging, since water use varies widely by crop type. To demonstrate the effect of crop type on agricultural water requirements, Figure ES-6 presents three crop mix scenarios for acreage under cultivation in 2000 (baseline) and at buildout: 1) Year 2000 (baseline) crop mix; 2) 100% vineyard with no change in pasture irrigation; and 3) 100% deciduous orchard with no change in pasture irrigation. Water requirements are based on 1.3 acre-feet per acre for grapes, 2.8 acre-feet per acre for orchard and no change in pasture irrigation total from the baseline year.

Assuming 100% vineyard would tend to underestimate agricultural demand while assuming 100% deciduous orchard would overestimate demand. From ES-4, the Year 2000 (baseline) crop mix represents a balance between grapes with a lower water requirement and deciduous orchard with a higher water requirement. For this analysis, therefore, the baseline year crop mix is assumed in projecting future agricultural water demand, except that acreage in pasture irrigation is assumed to stay constant. A similar analysis is presented in Chapter 4 for each area/purveyor.

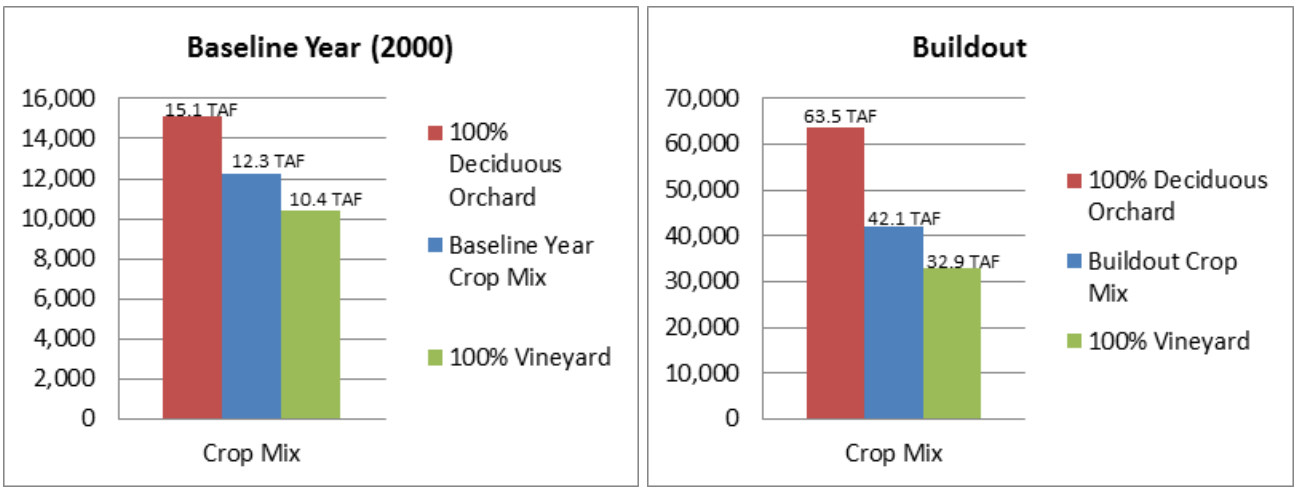

Figure ES-6 Crop Mix Water Requirement for Baseline Year and Buildout
SOURCE: EDC (2004) Appendix E (EPS 2003 and Wood Rogers 2003)
EDCWA WRDMP (2007) Table 4-7
Note: Water requirements do not include system losses, which vary by area/purveyor.

Adaptation to adverse conditions by agricultural growers in the County speaks to the region's favorable agricultural characteristics and resilience through severe economic downturns and pest and disease outbreaks. This adaptability and the following factors contribute to the potential for expanded agriculture land uses in the County:

- General Plan policies that are protective of agriculture and allow ranch marketing by right;
- High price of agricultural land elsewhere makes the County more attractive to producers;
- Crop diversification in the "Apple Hill" area, including apples, cherries, wine grapes, peaches, nectarines and Christmas trees drive ranch marketing operations that draw more than 35,000 visitors to the County each year;
- Total 2013 crop production value in El Dorado County was $57 million, representing a 20% increase from 2012 and up from $53 million in 2000. (EDCDAWM, 2000/12/13); and

- Agriculture and related activities contributed approximately $441 million to the County economy in 2013, of which ranch marketing and value-added products contributed about $222 million, up from $159 million in 2012 and the wine industry $179, up from $169 million in 2012 (EDCDAWM, 2013,2014).

Ensuring adequate water supply for agriculture is critical to a growing vibrant County economy, not only for current levels of cultivation and potential crop mix changes but for expansion of agricultural land use and a crop mix that can adapt to changing agricultural markets and biologically induced declines. El Dorado County's agricultural tourism brings visitors from the Sacramento region and from all over the state. This reflects a broader statewide benefit to supporting Apple Hill and other growers in El Dorado County with a reliable water supply.

ES-1.3 Groundwater Reliability

Groundwater is a vital source of supply for a significant portion of El Dorado County residents and growers within and outside public water purveyor service area boundaries. The Department of Water Resources' 2003 Bulletin 118 characterizes groundwater in the foothills as follows:

> *"Groundwater development in the fractured rocks of the foothills of the southern Cascades and Sierra Nevada is fraught with uncertainty. Groundwater supplies from fractured rock sources are highly variable in terms of water quantity and water quality and are an uncertain source for large-scale residential development."*

Persistent drought and climate change will continue to impact the reliability of foothill groundwater supplies. This is expected to increase demands on public water purveyors supplies through annexations of lands into public water supplier service areas, extensions of service to areas where well production is declining or where wells have failed and through transport of water by truck to existing residents that cannot economically connect to a public water supply system. Each of these scenarios is addressed in the 2014 Update.

ES-1.4 Water Use Efficiency

Water conservation has been and remains an important component of water resources management in the County. Although it is the area of origin for a significant volume of water used in the greater Sacramento region and other areas of the state, El Dorado County itself has limited developed water supplies. As a result, conservation efforts (including metering) have been a high priority since the 1976-77 drought and remain an important component of water resource management in the County. Many areas have been metered since the 1970s and water service on the West Slope of the County is metered today with very few exceptions. Irrigation management services (IMS) have been offered by EID since 1977; the program has substantially reduced agricultural water use and is responsible for saving over 2,000 acre-feet of water each year. EDCWA has been providing IMS for the remainder of the West Slope of the County since 2001. Local urban water suppliers are committed to achieving state mandated conservation and it is assumed the savings will be sustained except for increases resulting from higher levels of economic activity. Given the need for new water supplies to meet the County's needs, EDCWA is investigating options that would decrease demand even beyond State mandated conservation levels. A DWR Integrated Regional Water Management program grant has recently been approved for a County-wide Conservation Plan to identify and evaluate options for further conservation and water use efficiency.

ES-2 2014 UPDATE RESULTS

The updated analysis results in a projected total buildout demand of 149,000 AFY for the Western Slope of El Dorado County. This replaces the 2007 WRDMP projection of 182,000 AFY. The reduction is primarily due to State mandated urban water conservation and reduced agricultural demand projections. The plan to meet the SB X7-7 GPCD reduction requirements includes both implementation of water efficiency Best Management Practices (BMPs), that will reduce demand, and capital improvements that will reduce system losses. The plan to reduce urban demand to meet SB X7-7 requirements is discussed further in Chapter 5, Water Use Efficiency.

Reduced agricultural demand projections result from a reduction in the land area (to only those lands within Agricultural Districts) used to calculate future agricultural water use. Since growers in El Dorado County have already adopted efficient irrigation practices and irrigation management service programs have already been implemented, no additional water conservation is included in the agricultural water use factors used for this update.

Various metrics can be used in assessing water supply availability and adequacy. One standard, **safe yield**, defines the maximum amount of water that can be made available in any year, including the driest year(s) of record. It differs from **firm yield**, which takes into account imposed deficiencies, based on adopted policy, during periods of drought and, therefore, defines an annual quantity that can be met in most, but not all years. Based on these differences, safe yield and firm yield are typically used in water management projections for differing purposes. Safe yield, as the maximum amount of water conceivably available based on all water year types, is more commonly used in long range water supply planning as it is based primarily on water rights, physical constraints, and watershed hydrology. Alternatively, firm yield is used for shorter-term water supply management decision-making. Both are presented below. For this analysis a climate change scenario has also been prepared that suggests that firm yield could look very different in the future and could decrease to near historic hydrologic safe yield levels, confirming that safe yield should be used for long range planning purposes. Results of the climate change analysis are provided in Chapter 6.

The “Medium Growth Rate” scenario projection is used to estimate both intermediate and long term supply needs, and indicates a long term need for additional water supplies. The precise timing of that need will depend on the future West Slope growth rate. An estimated 75 percent of the urban demands in Other County Areas (OCA) not reallocated to El Dorado Irrigation District (EID) or Georgetown Divide Public Utility District (GDPUD) are assumed to be satisfied with individual wells and therefore are not considered in determining water supply need. An estimated 25 percent of that demand is assumed to require access to a public water supply at some time in the future. Agricultural demands, however, are reflected in new water supply need, as meeting this level of water demand may not be possible or sustainable with fractured rock groundwater supplies. The following tables provide an overall summary of the water supply needs based on current and projected demands including urban conservation. Table ES-1 focuses on ***short term water supply management using firm yield*** and generally indicates that all West Slope purveyors have adequate supplies to meet near term projected demand under historic hydrologic conditions and current firm yield policies. At full build-out of the 2004 General Plan, however, approximately 58,000 acre-feet per year (AFY) of additional water supplies could be needed to meet projected demand on the West Slope when considering firm yield supplies. Existing supplies, in ES-1 and ES-2, for EID include 5,600 acre-feet of recycled water (projected to be available before 2035), resulting

in a reduction in the need for new surface water supplies by the same amount. Buildout wastewater treatment plant discharges of 6,800 acre-feet are projected to return to the Cosumnes River watershed for downstream uses.

Table ES-2 focuses on ***long term planning using safe yield*** and indicates new supplies are needed for all purveyors at buildout of the 2004 General Plan, with up to 69,000 AFY of additional water supply needed for the entire West Slope.

Table ES-1 West Slope Additional Surface Water Supply Need with State Mandated Urban Conservation - Considering Firm Yield Supply (acre-feet)

	Firm Yield Supply	***Urban***			***Agricultural***			***Total Demand***			***Additional Water Supply Need***	
		2012	***2030***	***Build-Out***	***2012***	***2030***	***Build-Out***	***2012***	***2030***	***Build-Out***	***2030***	***Build-Out***
El Dorado Irrigation District	69,100	40,237	51,403	79,316	7,977	9,515	19,218	48,214	60,919	98,534	—	29,434
Georgetown Divide PUD	12,200	3,001	4,120	9,581	7,121	7,621	10,349	10,122	11,741	19,930	—	7,730
Grizzly Flat CSD Total	184	153	187	313	—	—	—	153	187	313	3	129
Other County Areas	—	—	—	12,336	—	—	17,476	—	—	29,812	—	20,560
Western Slope Total	**—**	**—**	**—**	***101,546***	**—**	**—**	***47,043***	**—**	**—**	***148,590***	***3***	***57,854***

Reference Chapter 4 and 6 for detailed demand and supply projections by purveyor/area.
Notes: 1) 25% of Other County Area urban demands and 100% of agricultural demands are included in the "Additional Water Supply Need." 2) 2012 agricultural demands do not include demand supplied from ground water or riparian sources.

Table ES-2 West Slope Additional Surface Water Supply Need with State Mandated Urban Conservation - Considering Safe Yield Supply (acre-feet)

	Safe Yield Supply	*Urban*			*Agricultural*			*Total Demand*			*Additional Water Supply Need*	
		2012	*2030*	*Build-Out*	*2012*	*2030*	*Build-Out*	*2012*	*2030*	*Build-Out*	*2030*	*Build-Out*
El Dorado Irrigation District	59,955	40,237	51,403	79,316	7,977	9,515	19,218	48,214	60,919	98,534	964	38,579
Georgetown Divide PUD	10,541	3,001	4,120	9,581	7,121	7,621	10,349	10,122	11,741	19,930	1,200	9,389
Grizzly Flat CSD Total	165	153	187	313	—	—	—	153	187	313	22	148
Other County Areas	—	—	—	12,336	—	—	17,476	—	—	29,812	—	20,560
Western Slope Total	**—**	**—**	**—**	***101,546***	**—**	**—**	***47,043***	**—**	**—**	***148,590***	***2,187***	***68,677***

Reference Chapter 4 and 6 for detailed demand and supply projections by purveyor/area.
Note: 1) 25% of Other County Area urban demands and 100% of agricultural demands are included in the "Additional Water Supply Need." 2) 2012 agricultural demands do not include demand supplied from ground water or riparian sources.

The analyses in this report are based on projections of both demand and supply based on a variety of assumptions. This report was completed during a time of substantial uncertainty due to severe drought conditions and an unprecedented curtailment of water rights by the State Water Resources Control Board. In addition, the U.S. Bureau of Reclamation recently imposed severe cutbacks on its water service contracts and record cutbacks to its water right settlement contractors (which were subsequently restored to specific contract limits following late winter rains). There are also significant uncertainties with regard to the specific impacts of climate change to water supply and demand within the County given its reliance on direct runoff and diversions from the American and Cosumnes River watersheds with documented long term declines in Sierra snowpack and more variability in runoff (Department of Water Resources, 2005 California Water Plan). It also appears likely that regulatory mandates will require increased flows entering the Sacramento-San Joaquin Delta, which could impact the reliability of upstream water supplies.

These uncertainties together with the County's reliance on costly pumped supplies from Folsom Reservoir, extremely limited access to groundwater, and limited upstream storage make it imperative to consider all options for increasing water use efficiency and augmenting future water supplies for the West Slope. It is particularly important to explore opportunities to improve the reliability of water supply conditions during prolonged drought.

There are three additional considerations for the future addressed in this 2014 Update. The first is the potential for future, additional water conservation. Urban utilities throughout California are focusing their efforts on meeting the urban water conservation mandates in SB X7-7 by 2020. Conservation efforts are not likely to stop at that point, however, and it is likely that additional conservation efforts will be considered in El Dorado County in the future. Chapter 5 sets forth a number of potential programs, noting that the implementation of any of these programs will be subject to a range of feasibility measures including cost-effectiveness.

A second consideration for the future reflects that the 2014 Update is a significant update to forecasted water demands on the West Slope and that there is value in revisiting data and key assumptions in future updates as more information becomes available (for example, from upcoming updates to urban water management plans which are due July, 2016) and the impacts of future growth are experienced. We are in a time of substantial change, recognizing the emerging concerns related to climate change, the remarkable disruption of the recent prolonged economic recession which followed a time of unprecedented growth, and continued changes in State water policy.

Finally, while not a purpose of this 2014 Update, Chapter 6 notes that there may be value in a specific climate change vulnerability assessment – of both supplies and demands – for the American River Basin supported by all water users reliant on such supplies. This includes all downstream water users (including environmental uses). It is clear that there is a statewide interest in water supplies generated within the American River watershed. As noted in the 2007 report on climate change vulnerability by the California Urban Water Agencies, the combined effects of decreasing water supplies and increasing water demands are serious challenges for the future.

ES-3 KEY FINDINGS

In summary, the key findings of this Update are listed below.

- Under short term water supply management policies, all West Slope purveyors have adequate supplies to meet near term demand under historic hydrologic conditions and current firm yield policies.
- Under long term safe yield planning assumptions, new supplies are needed for all West Slope purveyors at buildout of the 2004 General Plan, with approximately 69,000 AFY of additional water supply needed for the entire West Slope.
- The climate change hydrologic regime scenario confirms safe yield is the appropriate metric for assessing long term water supply need.
- Considering unprecedented water rights curtailment in 2014 and prolonged drought conditions, it is prudent for EDCWA and West Slope purveyors to consider all options for augmenting future water supplies and achieving greater water conservation for the West Slope.
- An American River Basin climate change vulnerability assessment supported by all water users reliant on such supplies may be valuable to understanding potential basin specific impacts.

- An EDCWA Office of Water Efficiency would provide needed leadership and funding to assist water purveyors in meeting existing and potential future State mandated water use efficiency.

This report was prepared by engineering staff of the EDCWA, with support from Atkins North America, Inc. and Maddaus Water Management, Inc. The development of this report was coordinated with the primary West Slope water purveyors, El Dorado County Planning and agricultural interests. Thank you to the individuals listed in the acknowledgement section of this report whom provided various levels of peer review and/or input.

EDCWA envisions that this report will be updated in the future as additional new information becomes available, which may include any of the following:

- Urban Water Management Plans completed by July, 2016 by GDPUD and EID.
- Monitoring of conservation program progress in meeting SB X7-7 targets.
- Ability to further expand the recycled water system with seasonal storage beyond current plans.
- Additional annexations beyond what was assumed as “favorable areas” within this study.
- Changes in planned versus actual development patterns over time.
- Refined assessment of water supply reliability of existing supplies.

EDCWA and water purveyors’ web sites provide relevant reference planning documents cited in this report or made available through EDCWA along with new information over time. There is not a definitive timetable for any future update and the content of this report is based on current best available information.