

Appendix 3A | Municipal and Industrial Water Provider Data Collection Summary: Historical Water Use

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As part of the *Moving Forward* effort, the Municipal and Industrial (M&I) Water Conservation and Reuse Workgroup collected information on historical M&I water use, conservation, and reuse from water providers within the major metropolitan areas that receive Colorado River water. This information supported an assessment of trends in water use, and current and past water conservation and reuse efforts. In this appendix, data used for the analysis of historical water use trends are summarized.

Historical M&I water use, conservation, and reuse information was solicited from the large water providers within the major metropolitan areas and representative cities with populations in excess of 100,000 for the period from 1980 through 2010. Smaller metropolitan areas and cities with population less than 100,000 were included in order to have representation from each of the Basin States and throughout the Basin.

Information was collected from various water providers and planning areas and summarized for the eight major metropolitan areas that receive Colorado River water. Because water supply and water use information is managed by different entities, which range from multiple local water providers to state planning agencies, the presentation of water use information at the appropriate geographic scale can be challenging. The locations of the major metropolitan areas and representative cities are shown on Figure 3A-1. The geographic areas refer to metropolitan areas within the hydrologic basin (such as Southern Nevada and Central Arizona) and also areas outside of the hydrologic basin where Colorado River water is used for M&I purposes (Front Range, Middle Rio Grande, Wasatch Front, Southeast Wyoming, Coastal Southern California, and Salton Sea Basin).

It was acknowledged that most water providers do not have complete or accessible records of historical M&I water use, conservation, or reuse information throughout this period and that data gaps exist. Additionally, water use data measurement and tracking varies between water providers, further complicating analysis. Table 3A-1 lists the water providers or planning area for which information was received, the population served, the period of data availability, and the associated major metropolitan area that receives Colorado River water. The total population served in these metropolitan areas is approximately 29 million, or more than 85 percent¹ of the total population served with Colorado River water supply.

Analysis of historical M&I water use was conducted at the major metropolitan area level within the period of available water use data. In some cases, water use or population data were missing for short periods in the information provided. To evaluate trends, missing water use or population data were estimated. For these short periods (less than one or two years), total annual water use was estimated based on an assumed linear trend in the per capita water use. Missing population data were estimated by either linear interpolation between given data or extrapolation estimated based on the growth rate for the county determined from United States (U.S.) Census data.

¹ Estimate based on the 2010 Census population data from cities within planning areas, as defined in the Colorado River Basin Water Supply and Demand Study (Basin Study), that receive Colorado River water and reported population served by water providers.

TABLE 3A-1

Summary of Annual Water Use Data Compiled for Areas that Receive Colorado River Water

Basin State	Water Provider or Planning Area	Population Served (2010)	Water Use Period Data	Associated Major Metropolitan Area and Inclusion in Report Summaries
Wyoming	City of Cheyenne Board of Public Utilities	72,000	2003-2012	Southeast Wyoming
	Green River/Rock Springs/Sweetwater County Joint Powers Water Board	35,900	1990-2013 ²	None (not included ³)
Colorado	Denver Water	1,310,000	1980-2012	Front Range
	Colorado Springs Utilities	445,700	1990-2012	Front Range
	Aurora Water	325,100	1980-2012	Front Range
	Fort Collins Utilities	129,000	1980-2012	Front Range
	City of Boulder Public Works	109,600	1990-2012	Front Range
	City of Longmont	87,500	1980-2012	Front Range
	City and County of Broomfield Water Utility	56,500	1980-2012	Front Range
	City of Grand Junction	26,700	1999-2012	None (not included ³)
Utah	Jordan Valley Water Conservancy District	585,400	2000-2013	Wasatch Front
	Weber Basin Water Conservancy District	580,100	1992, 2001, 2005, 2010	Wasatch Front (not included ⁴)
	Metropolitan Water District of Salt Lake and Sandy	385,300	2000-2013	Wasatch Front
	Washington County Water Conservancy District	138,500	1997, 2002, 2005, 2010	Wasatch Front (not included ⁴)
New Mexico	Albuquerque Bernalillo County Water Utility Authority	606,800	1980-2013	Middle Rio Grande
	City of Santa Fe Water Division	79,200	1995-2012	Middle Rio Grande
	Self-Supplied Industrial: PNM (state electricity provider)	Not Applicable	2001-2013	Middle Rio Grande (not included ⁴)
Nevada	Southern Nevada Water Authority	1,956,900	1990-2012	Southern Nevada

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Basin State	Water Provider or Planning Area	Population Served (2010)	Water Use Period Data	Associated Major Metropolitan Area and Inclusion in Report Summaries
Arizona	Phoenix Active Management Area	3,701,600	1985-2012	Central Arizona
	Pinal Active Management Area	100,600	1985-2013	Central Arizona
	Tucson Active Management Area	835,000	1985-2013	Central Arizona
California	Metropolitan Water District of Southern California	17,977,900	1980-2012 ²	Coastal Southern California
	Coachella Valley Water District	286,200	1980-2013 ¹	Salton Sea Basin
	Imperial Irrigation District	177,700	1980-2013	Salton Sea Basin

¹ Extracted from Volume 3 – Source Water Supply and Delivery 2013 Cheyenne Water and Wastewater Master Plans, Figure 3-3 Historic Potable Use and Service Population, Page 3-12. Retrieved from: <http://www.cheyennecity.org/DocumentCenter/View/16309>.

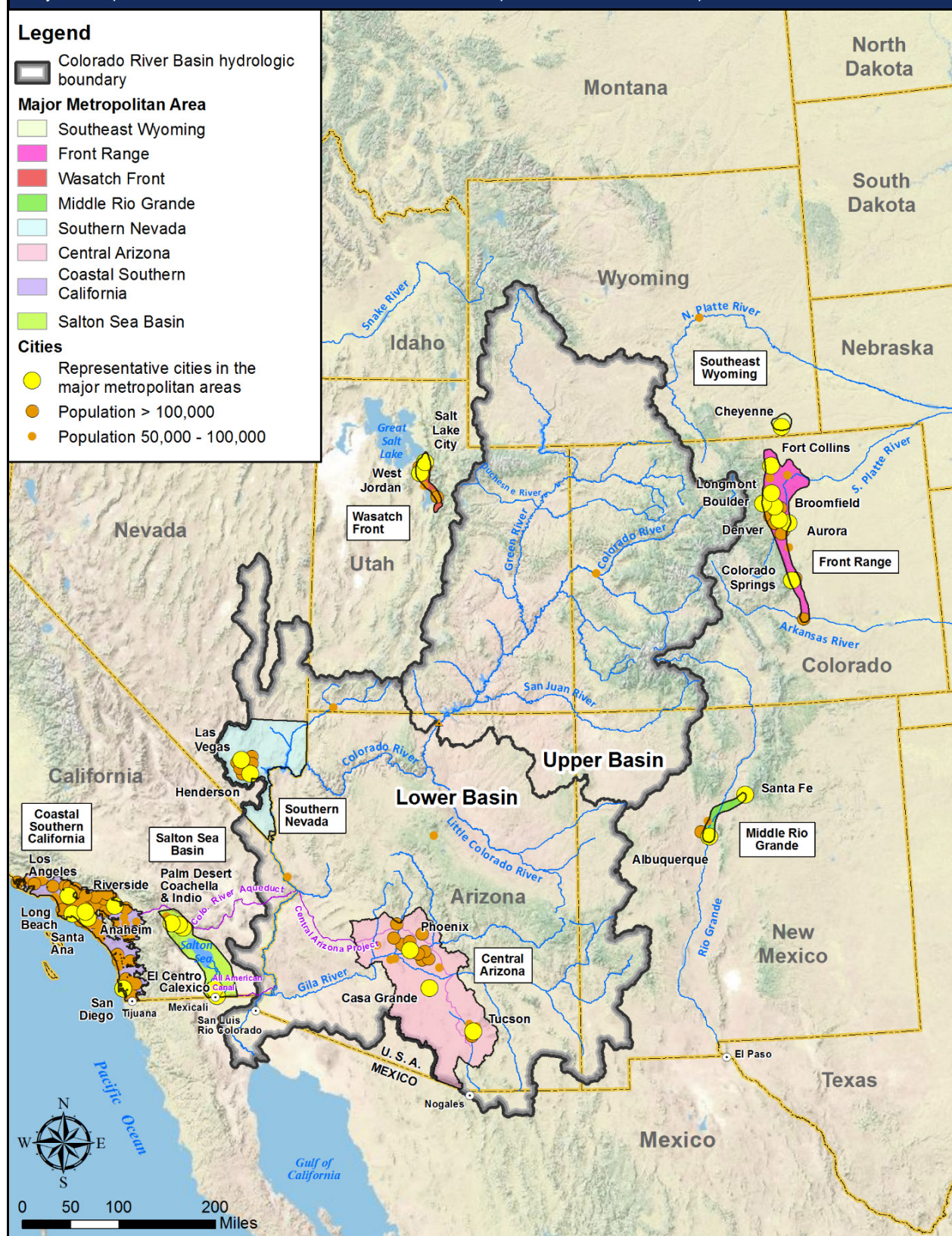
² Fiscal years, not calendar years.

³ Population less than 100,000 and located outside of major metropolitan areas.

⁴ Limited data available.

FIGURE 3A-1

Major Metropolitan Areas that Receive Colorado River Water, Representative Cities, and Populations



Note:
Similar to the Basin Study, the scope of the *Moving Forward* effort is limited to the portion of the Basin within the U.S.