

### 1.0 Introduction

This Integrated Regional Water Management Plan (IRWMP) is consistent with the Integrated Regional Management Program Grant Guidelines issued by the State Water Resources Control Board (SWRCB) and the California Department of Water Resources (DWR). Summarized below are the eight sections and the appendices included in this IRWMP:

- **Section 1: Introduction.** This section provides information relevant to this IRWMP.
- **Section 2: Goals and Objectives.** This section identifies the goals and objectives of this IRWMP and how it relates to the County General Plan Update and to statewide priorities and water management strategies.
- **Section 3: Plan Development.** This section outlines how the WRA developed this IRWMP, and addresses the regional coordination of water resource management planning efforts in adjacent regions, community and stakeholders outreach, and other relevant issues.
- **Section 4: Findings and Issues.** This section documents the findings and water resource management issues identified by the WRA.
- **Section 5: Potential Actions and Prioritization.** This section presents the potential foundational actions, individual actions by water resource management category, integrated actions, and the evaluation of actions based upon the objectives and issues identified by the WRA.
- **Section 6: Implementation Strategy.** This section outlines the implementation strategies for integrated water resource management actions.
- **Section 7: Action Program.** This section identifies the necessary tasks to implement the foundational and integrated action and reflects the results of attention devoted in some geographic subareas to prioritize and integrate potential actions.
- **Section 8: References.** This section lists the References cited in this IRWMP.
- **Appendices.** This IRWMP includes **Appendix A** through **Appendix F**. The information provided within the respective appendices is summarized below:

*Appendix A: Background Data and Information* – This document was prepared to serve as a resource reference for the WRA to summarize findings and issues and to formulate potential actions.

## Integrated Regional Water Management Plan April 2007

**Appendix B: Alternate Prioritization Method** – This documents was prepared to use in prioritizing potential individual and integrated actions; however, was ultimately not applied. It is included with this IRWMP for potential use and application as actions become better defined.

**Appendix C: Water-Related Policy Options for the Yolo County General Plan** – This documents presents draft policy options that reflect the WRA’s effort to integrate water and land use since this IRWMP and the General Plan Update were being performed concurrently.

**Appendix D: Community Workshops Outcomes** – This material summarizes the information presented and input received at the three public workshops held by the WRA during the preparation of this IRWMP.

**Appendix E: Stakeholder Meetings Outcomes** – This material presents a summary of the meetings that were held with stakeholders in various geographic regions of Yolo County during the preparation of this IRWMP. It provides the results of two public meetings held by the City of West Sacramento and Yolo County to refine the Sacramento River West Bank Integrated Project subsequent to preparing the draft IRWMP in 2006.

**Appendix F: Comments / Responses Draft IRWMP, October 2006** – This appendix includes the written comments submitted to the WRA and the responses to those comments.

### 1.1 Background

This IRWMP was prepared by the WRA. The WRA is a non-profit, mutual benefit corporation and consortium of entities that are authorized to provide a regional forum to coordinate and facilitate solutions to water management issues in Yolo County. A draft IRWMP was prepared in October 2006, and made available for public review and comment.

### 1.2 Purpose of the IRWMP

This IRWMP provides a wide-ranging vision for the future water management in Yolo County, consistent with the intent of Proposition 50, Chapter 8, passed by the California voters in November 2002, and administered by DWR and the State Water Board. High-priority water management actions including projects, programs, or policies are identified to improve water management in Yolo County. This IRWMP describes integrated water management actions that combine elements of five water management categories:

1. Water Supply and Drought Preparedness
2. Water Quality
3. Flood Management and Storm Drainage

## Integrated Regional Water Management Plan April 2007

- 4. Aquatic and Riparian Ecosystem Enhancement
- 5. Recreation

This IRWMP is a living document and will require periodic updates to remain useful as a water resource management planning tool. As work is completed and the understanding of resources issues and opportunities becomes better defined and collaboration and relationships within the County and within neighboring regions matures, this IRWMP will need to be updated (see Section 6 “ Implementation Strategy”).

### 1.3 Participating Agencies

This IRWMP applies to Yolo County. The member agencies of WRA represent major water management interests in Yolo County. The jurisdictions of the member agencies are identified in **Figure 1-1**.

The WRA was organized in 1993, to coordinate the implementation of the Water Resources Management Program, as proposed in the 1992 Yolo County Water Plan Update. The WRA has nine members that include urban and agricultural water purveyors and Yolo County. The water management responsibilities of each WRA member are presented in **Table 1-1**.

<b>Table 1-1 – WRA Member Agencies Responsibilities Related to Water of the WRA Member Agencies</b>	
<b>WRA Member Agency</b>	<b>Responsibilities Related to Water</b>
City of Davis	Operates and maintains municipal water and wastewater treatment facilities and storm drainage facilities.
Dunnigan Water District	Operates and maintains agricultural water distribution facilities.
Reclamation District 2035	Maintains levees and operates and maintains agricultural water delivery systems and agricultural and storm drainage facilities.
University of California, Davis	Operates and maintains municipal and agricultural water facilities, wastewater treatment facilities, and storm drainage facilities.
City of Winters	Operates and maintains municipal water and wastewater treatment facilities and storm drainage facilities.
City of West Sacramento	Operates and maintains municipal water and wastewater treatment facilities and storm drainage facilities.
City of Woodland	Operates and maintains municipal water and wastewater treatment facilities and storm drainage facilities.
Yolo County	Provides land use planning, support for water and wastewater service, levee maintenance, flood management, drainage, implementation of the Cache Creek Resource Management Plan and other aquatic and riparian ecosystem enhancement programs, and implementation of water-related recreation programs.
Yolo County Flood Control & Water Conservation District	Operates and maintains water storage, agricultural water delivery systems, and agricultural and storm drainage facilities.

# Jurisdictional Boundaries of Member Agencies

## Legend

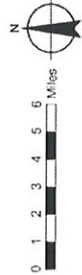


Reclamation District (RD)

Note: County Service Areas and Community Service Districts are not shown.

**UC Davis** WRA Member Agency

Note: Yolo County is a WRA member.

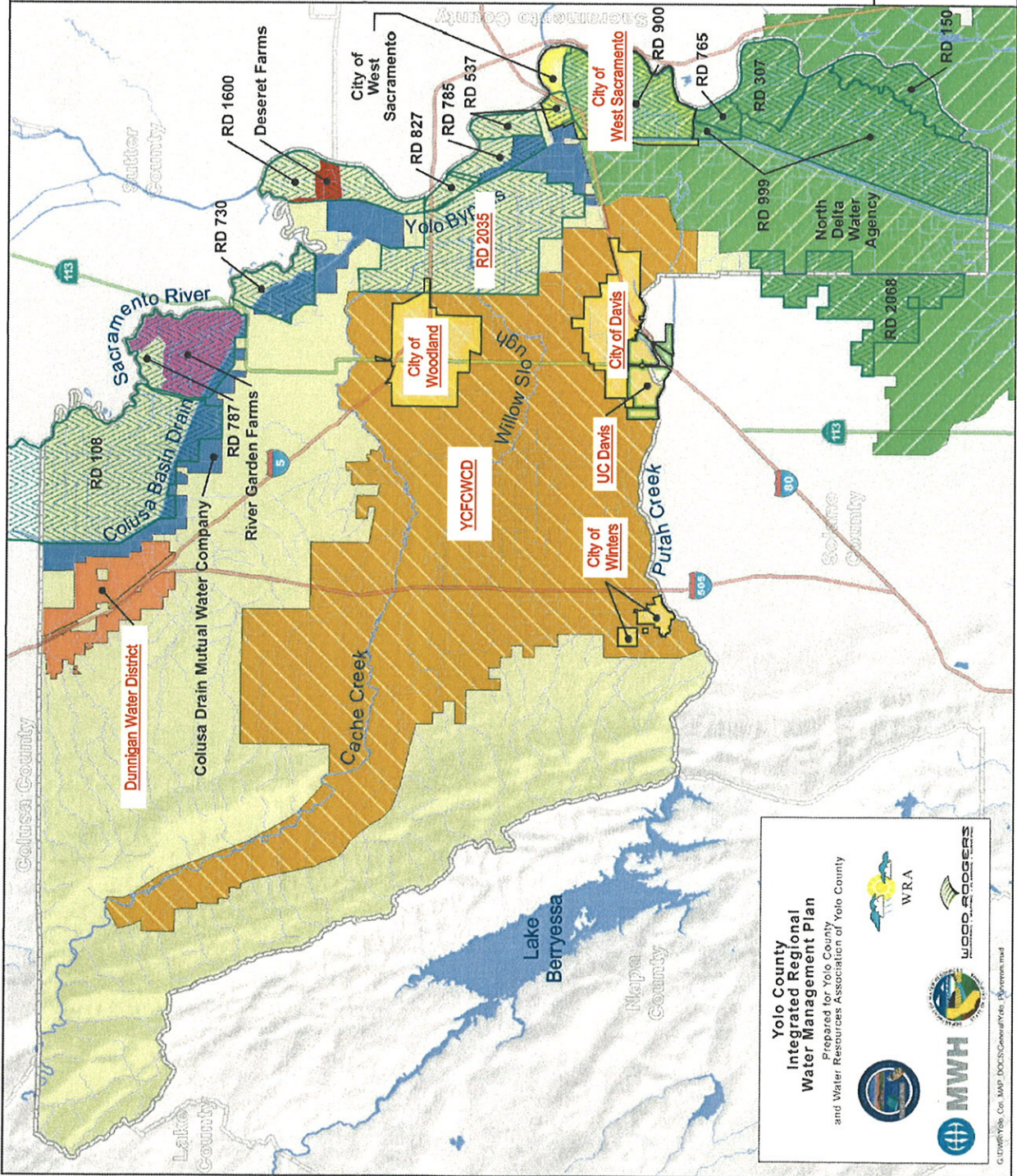


Projection  
California State Plane II NAD83  
Boundary Data Compiled by  
Department of Water Resources -  
Central District  
Production Date - February, 2005  
Yolo Co. Boundary - Yolo Co. GIS

Map Prepared by:



FIGURE 1-1



**Yolo County  
Integrated Regional  
Water Management Plan**  
Prepared for Yolo County  
and Water Resources Association of Yolo County

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**I n t e g r a t e d R e g i o n a l W a t e r M a n a g e m e n t P l a n**  
**A p r i l 2 0 0 7**

The WRA is governed by a Board of Directors with an elected representative from each of the member agencies. Each member also has a designated Board alternate. The Board of Directors meets quarterly, or as needed, to review or take action on time-sensitive and high-priority matters. The Board reviews WRA activities related to progress and budget, and provides a forum to coordinate water-related activities and to inform member agencies of activities underway within the Yolo County.

The WRA’s Technical Committee (TC) prepared this IRWMP. The TC is made up of senior staff from each of the member agencies who met biweekly, or as required, to complete this IRWMP, and to address other specific activities requested by the WRA Board of Directors. The TC reviewed member activities, coordinated ongoing and planned collaborative efforts, and considered other water-related activities throughout the region, coordinating with federal and state agencies and neighboring regions. The TC recommends actions and other substantive information for the WRA’s Board to consider and approve.

The planning process outlined in this document is structured for implementation, recognizing the unique characteristics of the geographic subareas in Yolo County. The planning process and, in particular, the public involvement and outreach components, are essential to facilitate future implementation of priority projects, following compliance with the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA). WRA member agencies are involved both as agencies that plan the IRWMP and as agencies that plan and implement their own independent water resource management activities—both processes are moving forward concurrently.

This IRWMP, however, recognizes the accomplishments and value of organizations that are not necessarily WRA member agencies, but are, nevertheless, a tremendous resource and it would be beneficial to the community if they became involved with the WRA in coordinating activities. Section 6.0 contains a description of the implementation strategy and the need for effective collaboration and coordination not only among the WRA member agencies, but non-member agencies and organizations as well.

Member agencies are performing and will continue to perform work that complements and supports this IRWMP, and vice-versa. For example, urban and groundwater management plans are essential to this IRWMP. Member agencies are updating these plans separately from but in coordination with this IRWMP process. Examples include work by the cities of Davis and Woodland to update their urban water management plans in compliance with California Water Code (CWC) 10610, and by the YCFCWCD and Dunnigan Water District to update groundwater management plans in compliance with CWC 10753.7.

Another example is the Environmental Impact Report being prepared for the cities of Davis and Woodland and UC Davis, to obtain a supplemental surface water supply from the Sacramento River. The work will be performed through a partnership between the respective entities above and the YCFCWCD. WRA envisions that this type of collaboration will implement many of the projects identified in this IRWMP. Partnerships may develop among member agencies,

## Integrated Regional Water Management Plan April 2007

with agencies in neighboring regions, or with federal or state agencies. The two-track process is illustrated in **Figure 1-2**.

In the past, water agencies and private parties, individually obtained and developed water supplies to meet the needs of Yolo County residents. However, members of the WRA recognize that managing existing water supplies, from the standpoint of quantity, quality, and environmental considerations, can no longer be done individually. They must work together to achieve the best solutions to challenges facing water users in Yolo County. A collaborative effort within this region and neighboring regions is essential to manage existing resources and, even more importantly, to embark on new projects that can enhance the reliable water supply and quality. WRA members recognize the importance of investigating issues and opportunities and projects at the local level before reaching out to neighboring regions. For that reason, the WRA deliberately defined the IRWMP region using the Yolo County boundary. This decision was made with the understanding that detailed formulation and implementation of projects may involve member agencies working in partnership with agencies from other neighboring regions.

### 1.4 Description of Region

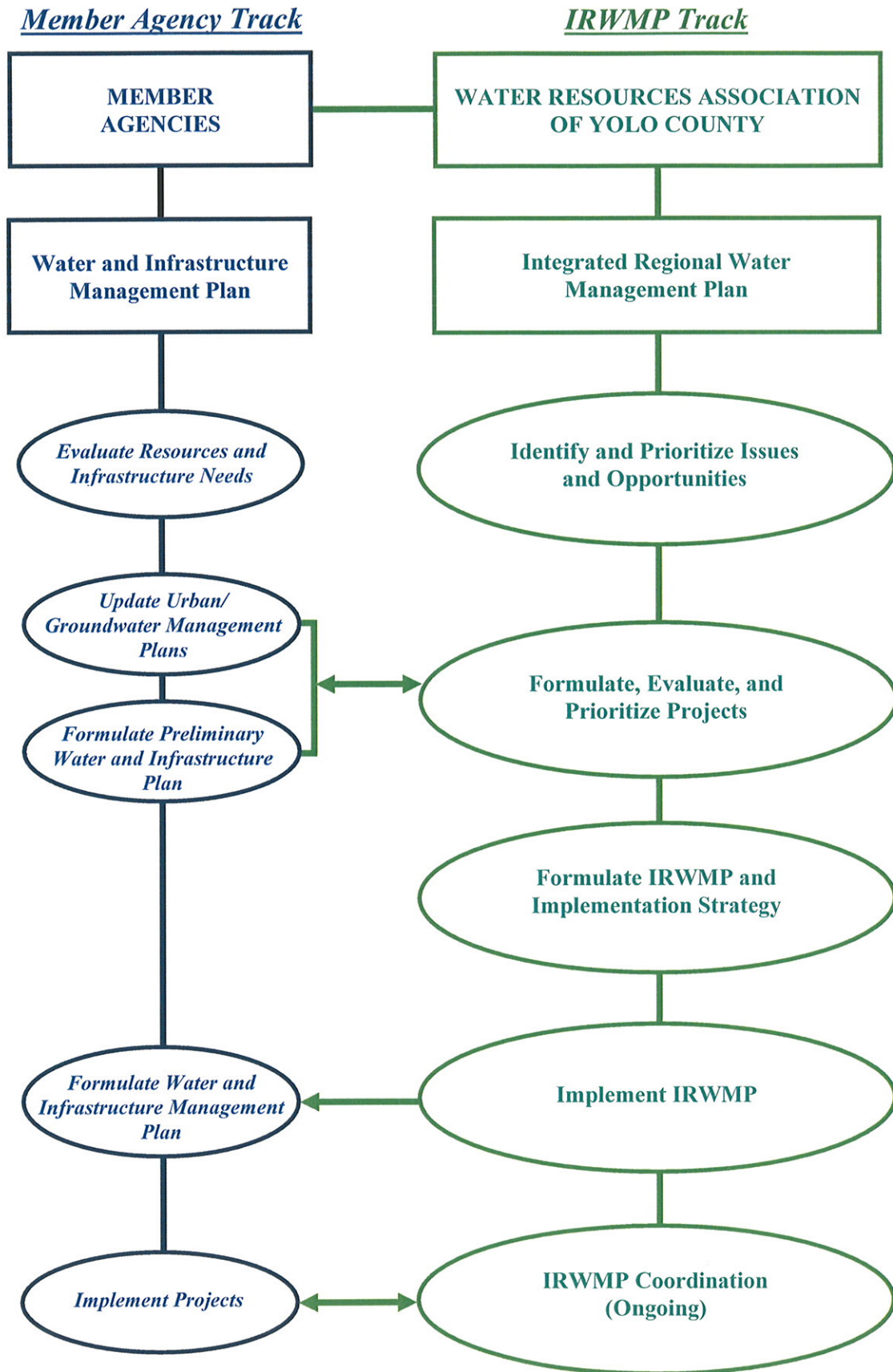
#### 1.4.1 Overview

Yolo County has a unique setting, as illustrated on **Figure 1-1**, with wide-ranging water and environmental resources, which provides the County with many opportunities and partnerships for resource management. The neighboring regions and linkage or resource relationship are shown in **Table 1-2**.

<b>Table 1-2 – Surface Water Resources Shared with Neighboring Regions</b>	
<b>Neighboring Region</b>	<b>Surface Water Resource Connection</b>
Lake County	Cache Creek
Sacramento Valley	Sacramento River and Colusa Basin Drain
City of Sacramento and Surrounding Area	Sacramento River and Yolo Bypass
Solano County	Putah Creek

**FIGURE 1-2**

**IRWMP – PLAN FORMULATION AND IMPLEMENTATION SCHEMATIC**



Source: WRA IRWMP Proposition 50 Grant Application  
May 12, 2005

Integrated Regional Water Management Plan  
April 2007

This section includes a summary description of the water resources of Yolo County. Additional details on the physical, environmental, institutional, and legal aspects of Yolo County water resources are presented in the Background Data and Information Appendix (**Appendix A**). Appendix A includes data from existing reports, studies, programs, investigations, and planning efforts and forms the detailed factual foundation for this IRWMP planning effort.

**Appendix A** includes the following main topics:

- § **Overview of IRWMP Effort:** Background information regarding integrated water management planning in the county.
- § **Geology, Hydrogeology, and Groundwater:** Geologic history (providing an understanding of the geological environment and how it has influenced the formation of aquifers in the area today), hydrogeologic and groundwater quality information, and the delineation of groundwater subbasins.
- § **Soils:** Soils found within Yolo County and their characteristics, mostly derived from the soil survey of Yolo County conducted by the Natural Resources Conservation Service (NRCS).
- § **Hydrology:** A general understanding of the surface water resources within or potentially available to Yolo County to facilitate formulating programs and projects that can help meet and sustain water needs.
- § **Land Use, Water Use, and Water Supplies:** A countywide land use summary, countywide water use summary, description of water management, water use, and supply characteristics of various water-related administrative bodies.
- § **Aquatic and Riparian Ecosystems:** The aquatic and riparian ecosystems of Yolo County, recognizing that the County’s water resources are also used for agricultural, municipal, and recreational purposes.
- § **California Water Rights Pertaining to Water Resource Management:** A brief overview of water law, rights, and institutional frameworks under which surface water and groundwater resources are managed and highlights of elements for water-related administrative bodies in Yolo County.

### 1.4.2 Groundwater Supplies

Aquifers beneath Yolo County are essentially contained within two stratigraphic units: (1) the older thick alluvial and river sediments of the Tehama formation, and (2) the younger sediments of the Red Bluff formation, floodplain deposits, and stream channel deposits that overlie the Tehama formation.

## Integrated Regional Water Management Plan April 2007

Aquifers are unconfined near the surface and become increasingly confined with depth (California DWR 2003; Williamson *et al.* 1989). There are no regionally continuous barriers to vertical flow, but inter-bedded clays and silts create a cumulative impediment to vertical groundwater flow with increasing depth (California DWR 2003; Williamson *et al.* 1989). Older, deeper sediments also tend to be more compact and therefore less permeable than younger, shallower sediments (Bryan 1923).

The natural hydraulic gradient of groundwater (its slope and flow direction) is toward the east and south, roughly following the topographic incline. Groundwater pumping has had an impact on this gradient (Hull 1984; Bertoldi *et al.* 1991) by creating localized depressions in the water table and land subsidence beneath areas of more intensive groundwater pumping (D'Onofrio and Frame 2003).

Developing surface water has relieved much of the stress on aquifers beneath Yolo County (Quad Knopf 2002; West Yost & Associates 1994). Localized groundwater effects are still evident beneath areas dependent on groundwater as a primary water supply, such as beneath the City of Woodland, beneath the City of Davis and the UC Davis area, and beneath the Yolo-Zamora Water District.

The aquifers are recharged by runoff and groundwater from the east-facing foothills, by percolation of precipitation, and by infiltration of surface water. Surface water infiltration is provided by the creeks and streams that flow from the Coast Ranges into the County; from delivered and applied irrigation water; from Sacramento and Feather River flood waters diverted to the Yolo Bypass; from the Sacramento River; and from the Sacramento River Deep Water Ship Channel that extends south from West Sacramento.

The aquifers are either entirely within the Tehama formation or within a combination of the Quaternary alluvial sediments and the uppermost Tehama formation. Groundwater quantity and quality varies, depending on location within the County. For this reason, it is helpful to segment the County into groups, or groundwater subbasins, to better characterize groundwater conditions throughout the region. Developing an understanding at the subbasin level is particularly important for stakeholders and water managers responsible for management of groundwater resources within Yolo County.

The Yolo County Region is contained completely within the Sacramento Valley Groundwater Basin (Basin 5-21) as described by DWR Bulletin 118 - Update 2003 (California DWR 2003). Furthermore, Yolo County overlies portions of the Capay Valley (5-21.68), Colusa (5-21.52), Yolo (5-21.67) and Solano (5-21.66) subbasins as described in Bulletin 118. However, the groundwater basins delineated and presented in **Appendix A** differ from subbasins delineated in Bulletin 118. The subbasin boundaries in **Appendix A** more concisely characterize the groundwater hydrology of the county and better coincide with political boundaries under which water management occurs in Yolo County. The subbasin boundaries were developed with the support of the DWR, as well as Yolo County WRA member agencies, during the preparation of **Appendix A**.

## Integrated Regional Water Management Plan April 2007

The six subbasins are:

1. Capay Valley
2. Buckeye Creek
3. Dunnigan Hills
4. West Yolo
5. East Yolo
6. Sacramento River

Characteristics of the groundwater subbasins are summarized in **Table 1-3**. The six subbasins are described in detail in **Appendix A**.

An overview of groundwater quality is also included in **Appendix A**. Further study of the groundwater quality and quantity may be required for specific projects.

<b>Table 1-3 – Summary of Yolo County Groundwater Subbasin Characteristics</b>					
<b>Subbasin</b>	<b>Predominant Freshwater Bearing Sediments</b>	<b>Total Thickness</b>	<b>Primary Developed Land Use<sup>1</sup></b>	<b>Predominant Water Supply Mix</b>	<b>Comments</b>
Capay Valley	Tehama Formation Flood Plain And Stream Channel Deposits	>1,000 feet	Agriculture	Surface water and groundwater	
Buckeye Creek	Tehama Formation Stream Channel Deposits	Unknown	Agriculture	Surface water and groundwater	Relatively few wells have been developed in this subbasin.
Dunnigan Hills	Tehama Formation Red Bluff Formation	Unknown	Agriculture	Surface water and groundwater	Wells are relatively less productive than wells tapping the Tehama elsewhere in the county.
West Yolo	Tehama Formation Flood Plain Deposits	Unknown	Agriculture and M&I	Surface water (relatively small amount ground-water usage)	

**Integrated Regional Water Management Plan  
April 2007**

**Table 1-3 – Summary of Yolo County Groundwater Subbasin Characteristics**

<b>Subbasin</b>	<b>Predominant Freshwater Bearing Sediments</b>	<b>Total Thickness</b>	<b>Primary Developed Land Use<sup>1</sup></b>	<b>Predominant Water Supply Mix</b>	<b>Comments</b>
East Yolo	Tehama Formation Stream Channel Deposits	>1,500 feet	Agriculture and M&I	Groundwater	Extensive pumping for domestic needs (Woodland, Davis, UC Davis) and some irrigation needs. Significant land subsidence (more than 1') has occurred.
Sacramento River	Tehama Formation Flood Plain Deposits	>2,500 feet	Agriculture and M&I	Surface Water	

<sup>1</sup>M&I: municipal and industrial

**1.4.3 Surface Water Resources**

Most runoff that affects Yolo County, favorably and unfavorably, originates outside of the County. As defined by DWR, Yolo County is a small portion, 3.8% (1,034 square miles) of the large Sacramento Hydrologic Region or watershed, which covers 26,960 square miles of land.

The principal watersheds that affect Yolo County are briefly described below. A more detailed discussion of these watersheds, including descriptions of the drainage systems, flooding/flood management, water availability, water quality, and erosion and sedimentation for each watershed, is presented in **Appendix A** (Chapter 4).

**Sacramento River**

The Sacramento River system is a complex network of natural and man-made features that are operated to achieve established objectives for water supply, flood control, and environmental purposes. Operating the system has become more complex with time as the water demands for each purpose have changed and when supplies are short and competition for water has become more intense.

The Sacramento River flows along the entire length of the eastern boundary of Yolo County. Its flow and the availability of water are controlled almost entirely by conditions outside the County.

**Yolo Bypass**

From a flood hydrology standpoint, the Yolo Bypass is an integral part of the Sacramento River system and plays a major role in providing flood protection for the City of Sacramento. It is a

## Integrated Regional Water Management Plan April 2007

component of the Sacramento River Flood Control Project that was constructed between 1917 and 1924. It consists of a 41-mile-long swath of agricultural land bounded by levees that are 7,000 to 16,000 feet apart and convey floodwater to the Sacramento-San Joaquin Delta near Rio Vista. An 8-mile segment along the western boundary of the Yolo Bypass immediately south of Putah Creek has no levee because ground elevations are high enough to contain floodwater within the Yolo Bypass, except during extremely large flood events. The major inflows to the Yolo Bypass are from the Sacramento River at the Fremont and Sacramento weirs. Other local tributaries include the Colusa Basin Drain (via the Knights Landing Ridge Cut), Cache Creek, Willow Slough, and Putah Creek

### Colusa Basin Drain

The Colusa Basin Drain (Drain) watershed comprises nearly 1,620 square miles in the Sacramento Valley, and includes portions of Glenn, Colusa, and Yolo counties. The portion of the watershed in Yolo County is approximately 255 square miles. The Drain is a man-made channel designed to convey irrigation drainage to the Knights Landing outfall gates for discharge into the Sacramento River. There are 32 ephemeral streams that convey storm runoff to the Drain, seven of which originate in the Dunnigan Hills of Yolo County. Major concerns about the quality of water in the Drain and potentially the Sacramento River include temperature, turbidity, herbicides and pesticides, recirculation of irrigation tailwater, soil erosion and sedimentation.

### Cache Creek

Under natural conditions, Cache Creek can be considered an ephemeral stream. The Cache Creek drainage system is divided into the Upper and Lower Cache Creek portions. The Upper Cache Creek portion of the system includes the watershed upstream of the YCFCWCD's Capay Diversion Dam. The Lower Cache Creek portion of the system extends from the Capay Diversion Dam downstream to and including the Cache Creek Settling Basin. For hydrologic purposes, however, the downstream limit of the Lower Cache Creek portion of the system will be considered at Interstate 5 or Yolo. The total Cache Creek drainage system, upstream of Interstate 5, encompasses 1,139 square miles, with the drainage area above Capay Diversion Dam comprising 1,044 square miles.

### Willow Slough

The Willow Slough watershed drains most of the central part of Yolo County between Cache Creek and Putah Creek. Natural levees that formed through deposition of sediment along the valley floor reaches of Cache and Putah creeks cause local runoff to flow away from the main creek channels and to enter a complex network of sloughs and small drainage channels. These channels flow eastward and eventually consolidate into the Willow Slough. Willow Slough, just east of Highway 113, discharges into the Willow Slough Bypass, which is part of the Sacramento River Federal-State Flood Control Project. The Willow Slough Bypass discharges directly into the Yolo Bypass.

## Integrated Regional Water Management Plan April 2007

### Putah Creek

The Putah Creek watershed encompasses approximately 710 square miles and extends from an elevation of 4,700 feet at Cobb Mountain in Lake County southeast for a distance of about 50 miles to the Yolo Bypass, at an elevation a few feet above sea level (Thomasson *et al.* 1960). Approximately 600 square miles of the watershed are upstream of Monticello Dam, located seven miles west of Winters. Monticello Dam was completed in 1957 by the U. S. Bureau of Reclamation and impounds Lake Berryessa, which has a capacity of 1.6 million acre-feet. Operations and maintenance of the project is performed by the Bureau of Reclamation. Water released from Lake Berryessa flows down Putah Creek to the Putah Diversion Dam, three miles west of Winters, where water is diverted into Putah South Canal for delivery to agricultural and municipal users in Solano and southern Yolo County. The Putah Diversion Dam impounds Lake Solano. The tributary drainage area for the “inter-dam” reach is 38 square miles, and only one tributary of any significance – Dry Creek – enters Putah Creek between the Putah Diversion Dam and the Yolo Bypass (Northwest Hydraulic Consultants 1998). Natural levees, deposited by the creek as it flowed across its alluvial fan toward the center of the Sacramento Valley, cause lands along both sides of lower Putah Creek to drain away from the creek.

#### 1.4.4 Surface Water Supplies

Yolo County relies on many different water supply sources, such as the Sacramento River, Cache Creek, and groundwater. There are also many different water-related administrative bodies within Yolo County, each of which has its own water supply sources (**Table 1-4**). Details of the region’s surface water supplies are discussed in **Appendix A** (Chapter 5).

Administrative Bodies that Deliver Water	Administrative Bodies’ Sources of Supply										
	Cache Creek	Willow Slough	Putah Creek	Putah South Canal	Yolo Bypass	Other Streams	Colusa Basin Drain	Sacramen to River	Tehama Colusa Canal	Ground-water	Shallow/ Intermediate/ Deep Wells <sup>1</sup>
<b>Cities and Universities</b>											
City of Davis										X	85% Inter.; 15% Deep
City of West Sacramento								X		X <sup>2</sup>	
City of Winters			X <sup>3</sup>							X	
City of Woodland										X	
UC Davis (Drinking Water)										X	100% Deep
UC Davis (Utility Water)										X	100% Shallow/ Inter.
UC Davis (Field Teaching and Research)	X <sup>4</sup>			X						X	100% Shallow/Inter.
<b>Community Service Districts</b>											
Cacheville CSD										X	
Esparto CSD										X	
Knights Landing CSD										X	
Madison CSD										X	

## Integrated Regional Water Management Plan April 2007

Table 1-4 – Water-Related Administrative Bodies and Sources of Supply												
Administrative Bodies that Deliver Water	Administrative Bodies’ Sources of Supply											
	Cache Creek	Willow Slough	Putah Creek	Putah South Canal	Yolo Bypass	Other Streams	Colusa Basin Drain	Sacramen to River	Tehama Colusa Canal	Ground-water	Shallow/Intermediate/Deep Wells <sup>1</sup>	
<b>County Service Areas</b>												
El Macero CSA										X		
North Davis Meadows CSA										X		
Wildwing CSA										X		
Willowbank CSA										X		
<b>Special District</b>												
Yolo County FC&WCD	X											
<b>Mutual Water Company</b>												
Colusa Drain Mutual Water Company							X					
<b>Reclamation Districts</b>												
RD 108							X	X		X <sup>5</sup>		
RD 150						X						
RD 787 (River Garden Farms)							X	X		X		
RD 999						X		X				
RD 2035 (Conaway Conservancy)	X	X						X		X		
RD 2068						X						
<b>Water Districts</b>												
Dunnigan Water District									X			
Yolo-Zamora Water District <sup>6</sup>												
<b>County Water District</b>												
Colusa County Water District <sup>7</sup>									X			
<b>Water Users’ Association</b>												
Rumsey Water Users’ Association	X											
Notes:												
<sup>1</sup> Shallow Wells (0’-300’), Intermediate Wells (300’-600’), Deep Wells (>700’).						<sup>4</sup> Cache Creek water provided to UC Davis from YCFCWCD.						
<sup>2</sup> Available stand-by wells.						<sup>5</sup> All in Colusa County.						
<sup>3</sup> Putah Creek Underflow Rights.						<sup>6</sup> Yolo-Zamora WD does not currently deliver water.						
						<sup>7</sup> Only a small part of the district is in Yolo County.						

### 1.4.5 Ecological Processes and Environmental Resources

A description of ecological processes and environmental resources within the region is provided in **Appendix A** (Chapter 6).

### 1.4.6 Land Use

Yolo County is unique in California: The County has a rich diversity of land use, water use, and water supplies. Agriculture, growing cities, and various flora and fauna exist throughout the County and they, together with public policy committed to agriculture and open space, are largely responsible for this diverse makeup.

**I n t e g r a t e d R e g i o n a l W a t e r M a n a g e m e n t P l a n**  
**A p r i l 2 0 0 7**

The Yolo County region is approximately 653,000 acres (**Table 1-5**).

<b>Table 1-5 – Yolo County Land Use Summary</b>	
<b>General Land Use Category</b>	<b>Acres (1997)</b>
<b>Yolo County – Total Acres</b>	<b>653,370</b>
Agriculture	366,058
Urban	30,437
Native (Non-cultivated Vegetation)	238,479
Riparian Settings	6,439
Other Water Bodies	9,261
Lands Not Surveyed	2,696

Data Source: 1997 DWR Land Use Survey and YCFCWCD Engineer’s 2001 Annual Report (in: Borcalli & Associates, Inc., 2001)

As noted in **Table 1-5**, over half of Yolo County’s acreage (approximately 366,000 acres or 56%) is in agriculture. According to a 1997 U.S. Department of Agriculture report, Yolo County has 923 farms averaging 581 acres, with 14% of the farms over 1,000 acres in size. Common crops include truck crops such as tomatoes and pasture such as alfalfa and hay. The *Yolo County General Plan Agricultural Element Policy Document and Background Report* confirms that agriculture has always been an important part of Yolo County’s history, culture, and economy. The County made efforts in its general plan to conserve and preserve agricultural land by enacting ordinances limiting the use of agricultural lands, creating minimum parcel sizes, and implementing the Williamson Act (which enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use). Strong community support and UC Davis (which conducts much of Northern California’s research on agriculture) have also helped the County preserve its agricultural lands.

Approximately 30,000 acres (5%) of the land is classified as urban. The majority of this acreage is located within the four incorporated cities of Davis, West Sacramento, Winters, and Woodland and UC Davis. The remaining urban areas are spread throughout the County in the unincorporated communities of Capay, Clarksburg, Dunnigan, Esparto, Guinda, Knights Landing, Madison, Rumsey, Yolo, and Zamora.

Approximately 254,000 acres (38%) is characterized by native vegetation, riparian settings, and other water bodies.

## Integrated Regional Water Management Plan April 2007

### 1.4.7 Demographics

#### Population

Population in the region is increasingly dominated by the incorporated cities. According to the California Department of Finance, between 1987, when West Sacramento became an incorporated city, and April 2000, the population of the four incorporated cities increased from 107,500 to 147,199 (**Table 1-6**). The population of unincorporated areas in the county has grown much less, from 18,950 in 1987 to 21,461 in April 2000. During this time, the total county population increased from 126,450 in 1987 to 168,660. According to projections developed by the Sacramento Area Council of Governments (SACOG) the total Yolo County population is projected to grow significantly, to 266,325 by 2025.

<b>Table 1-6 – Yolo County Population by Area</b>			
Area	Population (April 2000)	% Change from 1990	% Change from 1987
<b>Yolo County – Total Population</b>	<b>168,660</b>	<b>19.4</b>	<b>33.4</b>
City of Davis	60,308	28.8	36.9
City of Woodland	49,151	21.7	
City of West Sacramento	31,615	7.9	
City of Winters	6,125	NA	
Unincorporated	21,461	NA	13.3

Data Source: California Department of Finance 2002.

#### Employment

According to the U.S. Census Bureau (2000 Census Data), the total number of jobs increased by a moderate 16% from 1990 to 2000, primarily in the management and professional fields (**Table 1-7**).

<b>Table 1-7 – Yolo County Employment Summary</b>		
Employment Category	Persons Employed that are 16 Years and Older	
	1990	2000
<b>Yolo County – Total Employed</b>	66,260	76,648
Management, professional, and related occupations	25,754	31,725
Service occupations	8,521	10,860
Sales and office occupations	16,220	18,226
Farming, fishing, and forestry occupations	3,278	1,979
Construction, extraction, and maintenance occupations	3,967	5,479
Production, transportation, material moving occupations	8,520	8,379

Data Source: U.S. Census Bureau - 2000 Census.

**I n t e g r a t e d R e g i o n a l W a t e r M a n a g e m e n t P l a n**  
**A p r i l 2 0 0 7**

**Housing**

**Table 1-8** presents a summary of housing unit structures for Yolo County. Between 1990 and 2000 the number of housing units increased about 16%, enough to keep pace with population growth. The greatest increases were single family residences and multiple family residences with five or more units. There was a smaller percentage increase in mobile homes, and negligible change in the number of multiple family residences with two to four units.

<b>Table 1-8 - Yolo County Housing Summary</b>	
<b>Housing Unit Structures</b>	<b>Number of Housing Units (April 2000)</b>
<b>Yolo County - Total Dwelling Units</b>	<b>61,587</b>
Single Family Unit	38,872
2 to 4 Units	4,429
5 to 19 Units	4,957
20 or more Units	9,718
Mobile Homes	3,426
Boats, RV, Van, etc.	185

Data Source: California Department of Finance 2002.

**Income**

According to the U.S. Census Bureau 2000 Census Data (in 1999 dollars), the median household income \$40,769, while the 1990 U.S. Census (in 1989 dollars) reported a median income of \$28,866 for the region. This shows an average annual increase of approximately 41% between 1990 and 2000.

**1.4.8 Social Values**

Open space and preservation of farmland have been and will continue to be high-priority social values in developing public policy affecting land use, as well as education and continued support for Native American traditions.

Equally important are efforts to develop opportunities for environmental enhancement, as illustrated in the work of the Yolo Basin Foundation in the Yolo Bypass, the Putah Creek Council on Putah Creek, and the on-going effort to develop a Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP) for Yolo County.

**1.5 Environmental Compliance Process**

A CEQA compliance document (i.e., EIR or Negative Declaration) does not need to be prepared for this IRWMP, because it is a planning study that does not have a legally binding effect on later activities (Public Resources Code 21102, CEQA Guidelines 15262). This

**I n t e g r a t e d R e g i o n a l W a t e r M a n a g e m e n t P l a n**  
**A p r i l 2 0 0 7**

IRWMP identifies and prioritizes potential future actions, but does not commit any agency to any actions without additional design and analysis before approval.

Potential actions identified in this IRWMP may be subject to CEQA upon implementation. Actions may also be subject to other environmental laws and regulations, including but not limited to the Clean Water Act, the Endangered Species Act, the California Fish and Game Code, and county and city ordinances. The general compliance process for implementation of actions identified in this IRWMP is outlined in Section 6 “Implementation Strategy.”

**1.6 IRWMP Adoption**

Prior to its completion, this IRWMP was presented to the councils and boards of the WRA member agencies for formal adoption. Adoption by all nine member agencies was requested for finalization and adoption of this IRWMP. The signatories to this IRWMP are on the Plan Adoption page at the front of this document.