

7 CONSERVATION AND OPEN SPACE ELEMENT

This element focuses on balanced management of the County's multiple natural and cultural resources. The goals and policies also speak to a connected and accessible open space system with communities separated by green spaces that are linked by a network of trails. The element anticipates full integration of the Yolo Natural Heritage Program for multi-species protection. Future expansion of mineral resource extraction programs via the Cache Creek Area Plan and development of the future Cache Creek Parkway are addressed. Local actions to reduce greenhouse gases and promote alternative energy opportunities are also emphasized.

Uncertainty regarding future regulations and appropriate policy strategies for climate change are particularly challenging at the time of this update. In addition to a section on climate change within this element, policies and actions that address climate change appear throughout the entire General Plan and are identified by a small "🌍" icon. The County is committed to the reduction of greenhouse gases and has sought to balance this goal with other community values.

Similarly, the County faces uncertainty regarding future land uses and governance in the Delta. This section also contains a section on the Delta region, and there are additional Delta-related goals, policies, and actions throughout all the elements.

A. Introduction

1. Context

Yolo County's open spaces (including working agricultural landscapes) play a critical role in defining the identity of the County, incorporating many of the key natural and cultural heritage resources of local communities, and maintaining distinct boundaries between the cities and unincorporated communities. Protecting and enhancing this open space system and the natural, cultural and agricultural legacy it contains is of critical concern to the County.

The Conservation and Open Space Element provides direction regarding the preservation of open space and the conservation, continued use, and enhancement of natural resources in Yolo County. The County is committed to conserving its open spaces, biological resources, mineral, cultural resources, water resources, air quality, and energy resources, and to addressing climate change. This element provides for an integrated network of open space in Yolo County that is a framework to safeguard plant and wildlife habitat, provide for ongoing use of productive natural resources, protect archaeological and historical resources and heritage, and improve air quality in the Sacramento air basin. It provides for an ongoing commitment by the County to conserve energy and reduce the County's contribution to greenhouse gas emissions.

2. Contents

This element is organized into subsections which specifically cover:

1. Natural Open Space (Goal CO-1)
2. Biological Resources (Goal CO-2)
3. Mineral Resources (Goal CO-3)
4. Cultural Resources (Goal CO-4)
5. Water Resources (Goal CO-5)
6. Air Quality (Goal CO-6)
7. Energy Conservation (Goal CO-7)
8. Climate Change (Goal CO-8)
9. Delta Region (Goal CO-9)

The subsection for each of these topics is formatted as follows: Background Information, Policy Framework, and Implementation Program. Within the Policy Framework and Implementation Program sections, policies and actions related to climate change are denoted with the symbol “🌍”.

3. Background Information

Summary background information for each topic of this element is provided with the relevant subsection below.

B. Regulatory Framework

1. State General Plan Requirements

This Conservation and Open Space Element combines two of the seven required elements of a General Plan: the Conservation Element, which is required to address the conservation, development and utilization of natural resources, and the Open Space Element, which is required to address open space lands used for a variety of purposes.

Specifically, State law (Sections 65302d.1 and 65302d.3 of the Government Code) mandates that the Conservation Element address the following:

- Water and its hydraulic force
- Forests
- Soils
- Rivers, creeks, streams, and other waters
- Harbors
- Fisheries
- Wildlife
- Minerals

- Other natural resources
- Effects of planned development on natural resources on public lands
- Effects of planned development on natural resources on military installations
- Flood corridors
- Riparian habitats
- Flood areas
- Groundwater recharge
- Stormwater management

State law (Section 65302d.2 of the Government Code) specifies that the Conservation Element may also address the following:

- Reclamation of land and waters
- Pollution of streams and other waters
- Regulation of stream channels
- Erosion of soils, beaches, and shores
- Protection of watersheds
- Rock, sand, and gravel resources

State law (Section 65560b of the Government Code and Sections 5097.9 and 5097.993 of the Public Resources Code) mandates that the Open Space Element address the following:

- Open space for preservation of natural resources, including:
 - Areas required for the preservation of plant and animal life
 - Habitat areas for fish and wildlife species
 - Areas required for ecologic and other scientific study purposes
 - Rivers, streams, bays, and estuaries
 - Coastal beaches, lakeshores, banks of rivers and streams
 - Watershed lands
- Open space for the managed production of resources, including:
 - Forest land
 - Range land
 - Agricultural lands
 - Areas of economic importance for the production of food and fiber
 - Areas required for recharge of groundwater basins
 - Bays, estuaries, marshes, rivers, and streams important for commercial fisheries
 - Areas containing mineral deposits
- Open space for outdoor recreation, including:
 - Areas of outstanding scenic, historic, and cultural value
 - Areas particularly suited for park and recreation purposes
 - Access to lakeshores, beaches, rivers, and streams
 - Areas that link major recreation and open space land such as utility easements, river banks, stream banks, and scenic highway corridors

- Open space for public health and safety, including:
 - Earthquake fault zones
 - Unstable soil areas
 - Floodplains
 - Watersheds
 - High fire risk areas
 - Areas required for the protection of water quality and water reservoirs
 - Areas required for the protection and enhancement of air quality
 - Other areas which require special management or regulation because of hazardous or special conditions
- Open space in support of the mission of military installations, including:
 - Areas adjacent to military installations and military training routes
 - Areas underlying restricted military airspace
- Open space for the protection of Native American places, features, and objects, including:
 - Sanctified cemeteries
 - Places of worship
 - Religious or ceremonial sites
 - Sacred shrines
 - Historic, cultural or sacred sites
 - Historic or prehistoric ruins
 - Burial grounds
 - Archeological or historic sites
 - Inscription sites
 - Rock art

Yolo County has addressed all of the above items within this element, with the following exceptions:

- Forests and forest lands are addressed in this element only as related to various woodland habitats as the County has no commercial forest land or timber resources. “Urban forestry” is addressed in this element, and in the Land Use and Community Character Element, as it relates to tree canopy in community areas. Orchards and other tree crops are addressed in the Agriculture and Economic Development Element.
- Soils as a resource are addressed primarily in the Agriculture and Economic Development Element. Soil characteristics such as erosion and stability are addressed primarily in the Health and Safety Element.
- The County has no harbors. The Port of Sacramento is addressed in the Circulation Element.
- The County essentially has no military installations and facilities. The only military facility in the County, the McClellan/Davis Telecommunication Site, has been de-

clared surplus by the Air Force and is now closed. Discussion regarding this facility and plans to convert it to a County open space facility are addressed in this element.

- Areas subject to flooding, flood corridors, flood plains, and flood management are addressed in the Health and Safety Element.
- Stormwater management and drainage service providers are addressed in the Public Facilities and Services Element.
- Agriculture, range land, and the production of food and fiber are addressed in the Agriculture and Economic Development Element.
- Bays are not addressed in this General Plan as the County does not have these resources; however other biological resources are addressed in this element. Policies relating to the Delta, which is an estuary, are addressed throughout the General Plan.
- Coastal beaches are not addressed in this General Plan as the County does not have these resources. Other water resources and features are addressed in this element.
- Commercial fisheries are not addressed in this General Plan as the County does not have a commercial fishery resource or industry. Other fishery resources are addressed in this element.
- Utility easements are addressed in the Public Facilities and Services Element.
- The County has no designated federal or State Scenic Highways. A portion of State Route 16 (from approximately the town of Capay at County Road 85, north to the County line) is identified by Caltrans as “eligible” for designation as a State Scenic Highway but is not officially designated. Locally designated scenic roadways are addressed in the Land Use and Community Character Element.
- Seismic, geological, and wildland fire hazards are addressed in the Health and Safety Element.

2. Other Related Efforts

The following local and regional plans, programs, and organizations affect or are involved in the implementation of conservation and open space protection in Yolo County:

- Yolo Natural Heritage Program (YNHP)
- Oak Woodlands Management Plan
- Parks and Open Space Master Plan
- Cache Creek Area Plan (CCAP)
- Integrated Regional Water Management Plan (IRWMP)
- SACOG Rural Urban Connection Strategy
- Sacramento River Conservation Area Forum
- Yolo Bypass Working Group and Planning Forum
- Putah Creek Council and Plan
- Cache Creek Conservancy

- Blue Ridge Berryessa Snow Mountain Natural Conservation Area Partnership
- Yolo Land Trust
- Yolo County Resource Conservation District
- Tuleyome
- Other private non-profit organizations

C. Natural Open Space

1. Background Information

a. Existing Natural Open Space

This section addresses County “resource” parks including regional and open space parkland managed for multiple objectives. Existing parks and trails are shown in Figure CO-1. Community (neighborhood parks), such as those located in Esparto and Dunningan, and the County Historical Museum facility are discussed in the Public Facilities and Services Element. A complete list of existing County Parks is provided in Table CO-1. A map of proposed future park facilities is provided in Figure CO-2.

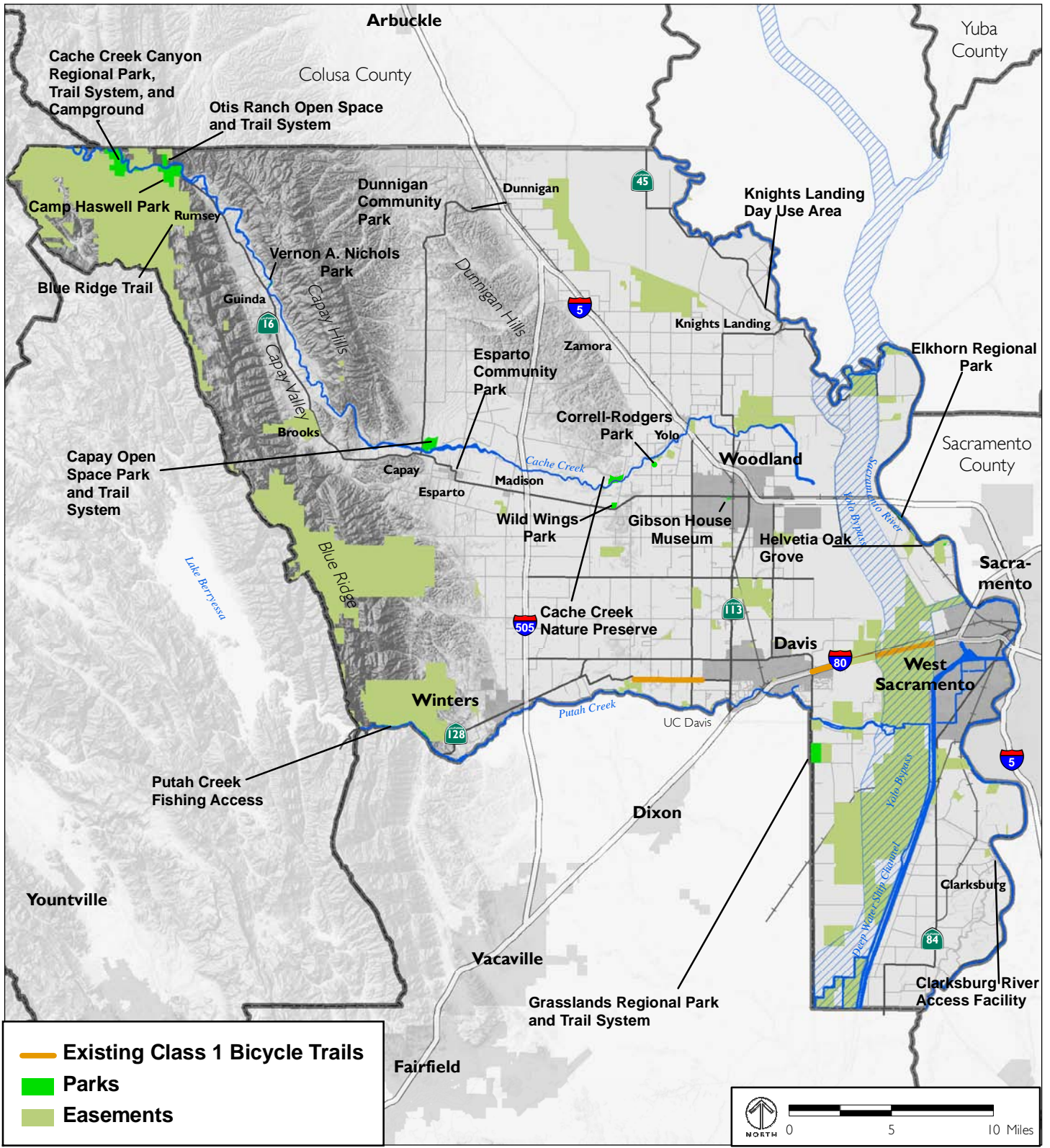
The term “resource” park is used herein to refer to regional and/or open space parkland, typically much larger in size than a community park, typically characterized by passive and/or very low-management uses, and are intended to serve the county populations rather than an individual community. In contrast community (or neighborhood) parks are small in area (less than 10 acres), usually located in or near small population centers, and developed for a variety of community uses, gatherings, and events. These parks are intended to provide active recreational areas, such as playgrounds, sports fields, and sports courts.

Yolo County owns and/or manages a number of resource parks; however, the vast majority of open space in the County remains in private ownership. Additional public and quasi-public landowners include non-profit organizations, tribal groups and non-County public agencies, including the incorporated cities, the University of California, the State and federal governments. Figure CO-3 shows the various existing publicly-owned or managed open space lands in the county.

Large open space areas in Yolo County are owned and managed by a variety of entities including federal, State, and local government, and private interests. Publicly-owned lands account for approximately six percent of the county land area. Large properties under public ownership and/or management in Yolo County include:

- The Yolo Bypass Wildlife Area (Wildlife Area) is 16,770 acres of managed wildlife habitat and agricultural land located within the southern floodway of the Yolo Bypass.¹ A portion of the Wildlife Area spans Interstate 80 adjacent to the Yolo Causeway, between the cities of Davis and West Sacramento. The Wildlife Area is

¹ The Yolo Basin Foundation, *Land Management Plan for the Yolo Bypass Wildlife Area*, page 1-1.



Source: County of Yolo GIS, 2006.

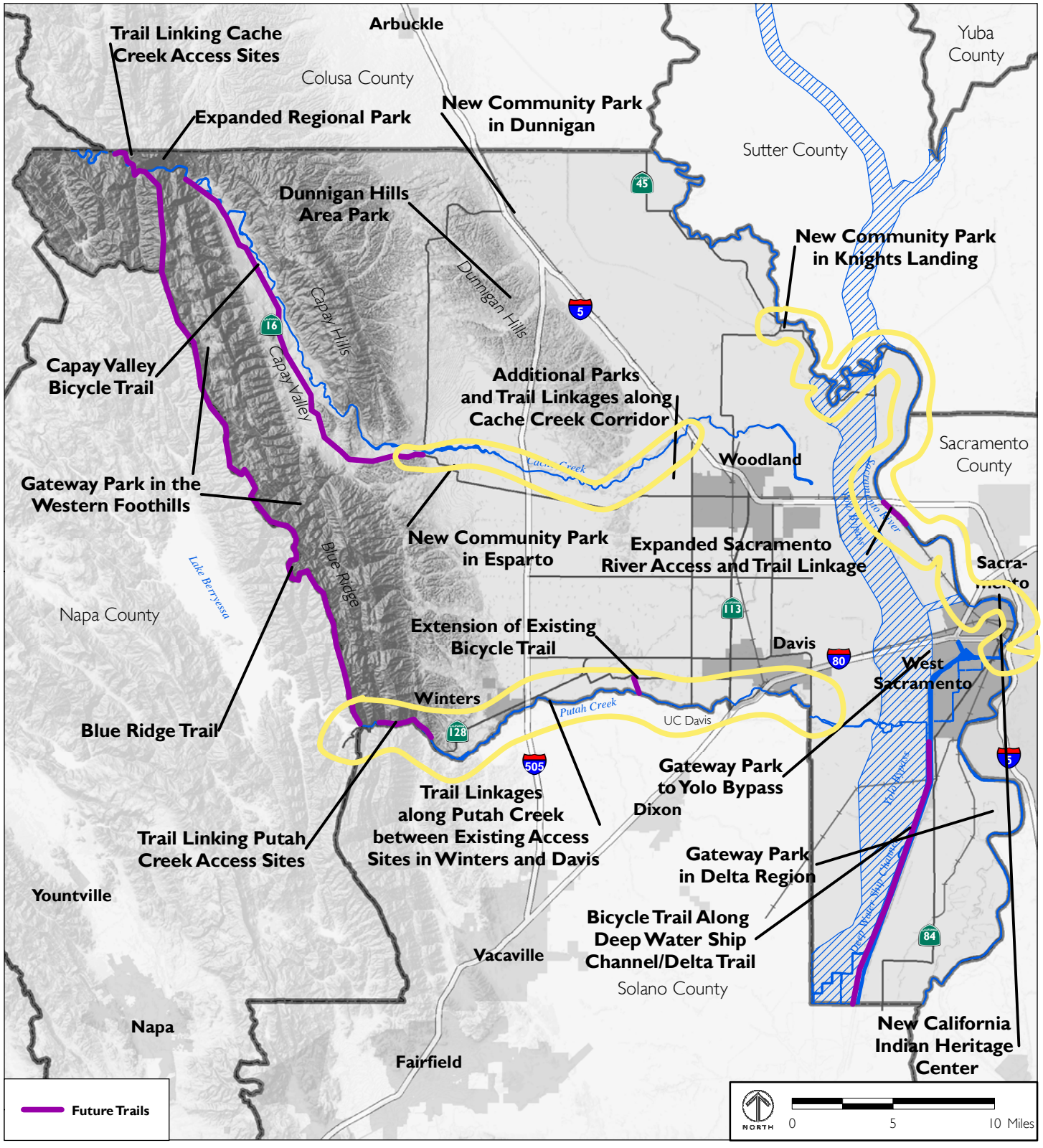
FIGURE CO-1
 EXISTING PUBLIC PARKS AND TRAILS

TABLE CO-1 EXISTING COUNTY PARKS

Park	Acreage	Location
Dunnigan Community Park	0.5	3640 County Road 89A, Dunnigan
Esparto Community Park	1	17001 Yolo Avenue, Esparto
Cache Creek Canyon Regional Park, Trail System and Campground	685	1475 State Route 16, Rumsey
Camp Haswell Park	7	1999 State Route 16, Rumsey
Capay Open Space Park and Trail System	41	15560 County Road 85, Capay
Clarksburg River Access Facility	4	38125 Old River Road, Clarksburg
Elkhorn Regional Park	49	18989 Old River Road, West Sacramento
Gibson House Museum	2	512 Gibson Road, Woodland
Grasslands Regional Park and Trail System	313	30475 County Road 104, Davis
Helvetia Oak Grove	12	20470 Old River Road, West Sacramento
Knights Landing Day Use Area	4	9350 State Route 45, Knights Landing
Vernon A. Nichols Park	21	17195 County Road 57, Guinda
Otis Ranch Open Space and Trail System	587	West of State Route 16, Rumsey
Putah Creek Fishing Access	87	24135 State Route 128, Winters
Wild Wings Park	17	North of Goldeneye Street and south of Cache Creek, Woodland
Correll-Rodgers Park	40	East of County Road 96 and south of Cache Creek, Woodland
Cache Creek Nature Preserve	119	Southwest corner of County Road 20X and 94B, north of Cache Creek, Woodland
TOTAL	1976.5	

a public and private restoration project managed by the California Department of Fish and Game (DFG) in consultation with the Yolo Basin Foundation. In 1997, the U.S. Army Corps of Engineers restored wetlands and associated habitats within the Wildlife Area. This project, originally named the Yolo Basin Wetlands, was renamed the Vic Fazio Yolo Wildlife Area. The entire wildlife area, however, is officially named the Yolo Bypass Wildlife Area.

- The Blue Ridge Berryessa Snow Mountain Natural Conservation Area (NCA) is a conservation partnership involving various public lands working with private owners and non-profit organizations to coordinate open space among willing participants. Much of the area remains within private ownership and is not subject to State or federal management. The NCA consists of 785,000 acres along the spine of the western Blue Ridge Mountains in the northwestern part of the county. In addition to Yolo County, the NCA extends into Colusa, Solano, Napa and Lake Counties.

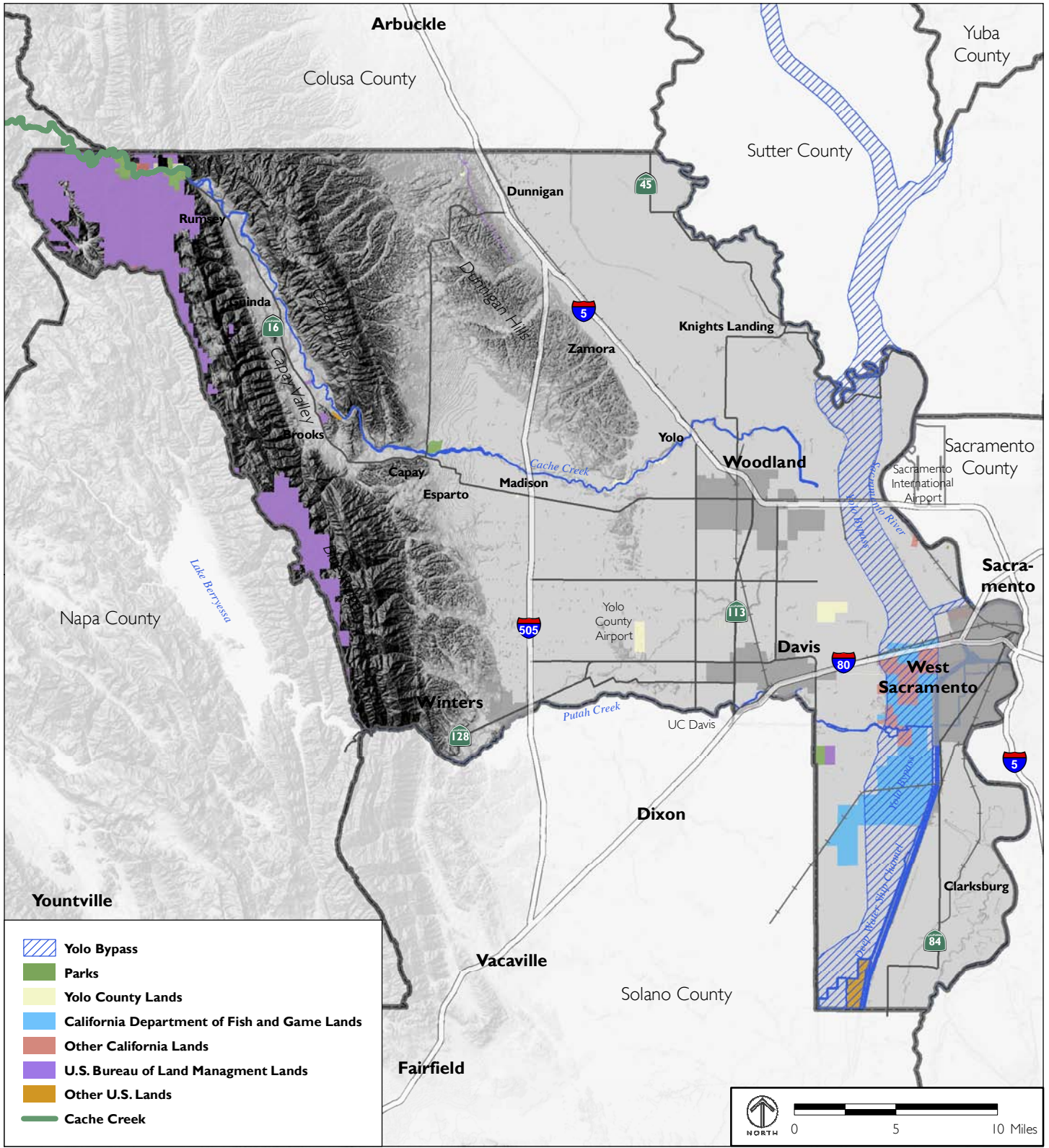


Source: Yolo County GIS, 2006.

FIGURE CO-2

FUTURE PARKS AND TRAILS

COUNTY OF YOLO
 2030 COUNTYWIDE GENERAL PLAN
 CONSERVATION AND OPEN SPACE ELEMENT



Sources: Yolo County GIS, 2006; Department of Fish and Game, 2000.

FIGURE CO-3
 PUBLICLY-OWNED OPEN SPACE AREAS

- The Cache Creek Resources Management Plan (CCRMP) is a component of the Cache Creek Area Plan (CCAP). The CCAP is an adopted part of this General Plan. The focus of the CCAP is groundwater protection, agricultural preservation, restoration of Cache Creek, and limitation and regulation of mining. The CCRMP eliminated in-channel commercial mining from Lower Cache Creek, and established an improvement program for implementing on-going projects to improve channel stability and restore habitat along the creek banks. The CCRMP provides the policy framework for restoration of the 14.5-mile Lower Cache Creek. It includes specific implementation standards within the Cache Creek Improvement Program (CCIP). The CCIP is the implementation plan for the CCRMP that identifies categories of restoration/protection projects along a precisely defined stretch of creek. These include: bank stabilization, channel maintenance, revegetation, and habitat restoration according to identified design requirements.

The federal government owns 30,225 acres² and the State of California owns 17,257 acres³ of land in unincorporated Yolo County managed for open space purposes. Each of the four Yolo County cities own public open space, mostly in the form of parkland within their boundaries. Notably, the City of Davis has acquired open space lands in a number of locations around its edge, and a number of open space areas are owned and managed by the University of California.

Public access to open space in Yolo County is restricted on most privately-owned open space lands and some public sites. Agricultural lands are often considered informal open space, and indeed are treated by the State as Open Space for the Managed Production of Resources. Most agricultural lands are privately held and generally are not open to the public. As noted above, agriculture and rangeland are addressed in the Agriculture and Economic Development Element.

Of the publicly held open space in the County, Lower Cache Creek provides natural open space and controlled public access to former gravel mining re-use areas. This is anticipated to expand over time, pursuant to the CCRMP. The Yolo Bypass, Putah Creek and Willow Slough allow public access within the waterway but do not allow access to adjacent, privately-owned properties. Other public open space areas are restricted for health and safety, security, or to protect sensitive habitats or species. Public access in the proximity of private property may become restricted because of compatibility concerns, such as trespass and nuisance.

b. Future Natural Open Space

Yolo County has great potential for new open space acquisitions in the future. Expanding resource parks opportunities and other open space is important to the values

² Within the unincorporated area only. Does not include Tribal Trust land, DQ University, freeways, or highways.

³ Within the unincorporated area only. Does not include UC Davis, freeways, highways.

of the County. As shown in Figure CO-2, the County plans to add new resources parks and other open space in key areas over time.

2. Policy Framework

GOAL CO-1 **Natural Open Space. Provide a diverse, connected and accessible network of open space, to enhance natural resources and their appropriate use.**

- Policy CO-1.1 Expand and enhance an integrated network of open space to support agriculture, recreation, natural resources, historic and tribal resources, habitat, water management, aesthetics, and other beneficial uses.
- Policy CO-1.2 Develop a connected system of recreational trails to link communities and parks throughout the county. 🌍
- Policy CO-1.3 Create a network of regional parks and open space corridors that highlight unique natural resources and recreational opportunities for a variety of users. 🌍
- Policy CO-1.4 Provision of an appropriate level of public facilities and infrastructure shall be a priority for all County park facilities.
- Policy CO-1.5 Establish future regional park and open space facilities close to population centers. 🌍
- Policy CO-1.6 Develop “gateways” or trailheads that provide access for the public to County, State, and federal lands.
- Policy CO-1.7 Support efforts by willing landowners and non-profit groups to provide new opportunities for outdoor recreation.
- Policy CO-1.8 Encourage responsible stewardship of private lands, while promoting increased opportunities to access waterways and other public natural areas amidst privately-owned land.
- Policy CO-1.9 Promote agriculture-related recreation, such as farm stays, dude ranches, wineries, equestrian facilities, etc.
- Policy CO-1.10 Avoid long-term degradation of environmental resources in new and existing regional park and open space facilities.
- Policy CO-1.11 The target threshold for resource parks (regional and open space parks) shall be 20 acres per 1,000 total County population (both unincorporated and incorporated). Larger ratios may be appropriate in

Specific Plan areas to accommodate important natural features and/or safety areas.

- Policy CO-1.12 Support development of the proposed Delta Trail and coordinate the development of recreation areas and public open space with regional trail planning. 🌍
- Policy CO-1.13 Create opportunities for ecotourism.
- Policy CO-1.14 Within the Delta Primary Zone, ensure compatibility of permitted land use activities with applicable, properly adopted, natural open space policies of the Land Use and Resource Management Plan of the Delta Protection Commission.
- Policy CO-1.15 Support the preservation of open space via acquisition of fee title or easement interest by land trusts, government agencies, and conservancies that are consistent with this General Plan.
- Policy CO-1.16 Support efforts to acquire either fee title or easements on additional open space areas adjoining existing protected natural resource areas to increase the size, connectivity, and buffering of existing habitat. 🌍
- Policy CO-1.17 Coordinate open space acquisition with the Yolo Natural Heritage Program.
- Policy CO-1.18 Out-of-county mitigation easements in Yolo County for the loss of open space, agriculture, or habitat in other jurisdictions, and flood easements in Yolo County are generally acceptable, provided the easements meet the following criteria:
- Prior notification to Yolo County;
 - Consistency with the goals and policies of the Yolo County General Plan, particularly as related to planned growth, infrastructure, and agricultural districts;
 - Secured water rights and infrastructure to economically maintain the proposed mitigation use;
 - Requirements that existing agricultural operations continue to be farmed for commercial gain;
 - Prohibitions on residential use;
 - Mandatory wildlife friendly strategies and practices; and
 - Compensation to Yolo County for all lost direct and indirect revenue.

Where proposed easements meet the identified criteria, no further approval is needed. Where one or more criteria are not met, discretionary approval is required.

- Policy CO-1.19 Work with the Blue Ridge Berryessa Snow Mountain Natural Conservation Area Partnership, the Bureau of Land Management, Napa County and other landowners on a voluntary basis to complete the Blue Ridge Trail through voluntary acquisitions.
- Policy CO-1.20 Support the development of a new State Park in Yolo County, with emphasis on expanding opportunities for family camping and water-related recreation, as well as the Great Central Valley initiative to create an agricultural heritage park.
- Policy CO-1.21 Encourage the Bureau of the Interior and/or the General Services Administration to transfer the site of DQ University to County ownership, should it no longer be used for tribal education.
- Policy CO-1.22 Support development of a new State off-highway vehicle (OHV) park at an appropriate location.
- Policy CO-1.23 Emphasize the use of native grasses, shrubs and trees as the primary focus of landscaping and restoration work within resource parks. 🌍
- Policy CO-1.24 Work with concessionaires and lessees to provide recreational amenities that do not conflict with other park uses or general public access.
- Policy CO-1.25 Increase public access and recreational uses along waterways wherever feasible, particularly Cache Creek, Lower Putah Creek, the Yolo Bypass, and the Sacramento River.
- Policy CO-1.26 Allow for specified areas of resource parks to be preserved, enhanced and/or restored as mitigation sites, consistent with the requirements of appropriate regulatory agencies, provided that adequate compensation, including funding for operations and maintenance of the mitigation, is provided.
- Policy CO-1.27 Support development of a new California Indian Heritage Center in the City of West Sacramento located at the confluence of the Sacramento and American rivers.
- Policy CO-1.28 Support improved access for bank fishing.

3. Implementation Program

- Action CO-A1 Update the Parks Master Plan as necessary to implement the goals, policies, and actions of relevant portions of the Conservation and Open

Space Element. Develop and implement a system of open space corridors and trails that connects each community and city by integrating waterways, scenic areas, significant habitat areas, County parks, and other special resource areas. 🌍 (Policy CO-1.1, Policy CO-1.2, Policy CO-1.3, Policy CO-1.12, Policy CO-1.25, Policy CO-1.26)
Responsibility: Parks and Resources Department
Timeframe: 2010/2011

Action CO-A2 Establish permanent green buffers between cities and unincorporated towns to ensure the continued distinctiveness of each community. 🌍 (Policy CO-1.2)
Responsibility: Planning and Public Works Department
Timeframe: 2012/2013

Action CO-A3 Acquire fee title or easements to promote wildlife migration routes focusing on Cache Creek, the Yolo Bypass, Putah Creek, Willow Slough, the Sacramento River, and the Blue Ridge area. (Policy CO-1.1, Policy CO-1.3, Policy CO-1.15, Policy CO-1.17, Policy CO-1.19, Policy CO-1.25)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A4 Seek to acquire voluntary easements to ensure connectivity with the conservation areas established through the Blue Ridge Berryessa Snow Mountain Natural Conservation Area Partnership. 🌍 (Policy CO-1.1, Policy CO-1.3, Policy CO-1.8, Policy CO-1.16, Policy CO-1.19)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A5 Pursuant to the Cache Creek Area Plan, develop a recreation plan for the Cache Creek Parkway including a range of public activities and uses. (Policy CO-1.25)
Responsibility: Parks and Resources Department
Timeframe: 2012/2013

Action CO-A6 Clearly define boundaries between public open space and private agricultural lands through mapping, fencing, and/or other appropriate means. (Policy CO-1.1)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A7 Connect the future Bay Delta Trail system, the future trail system in the lower Yolo Bypass, and the future Cache Creek Parkway system and link those to the American River Bikeway system in Sacramento

County. 🌐 (Policy CO-1.1, Policy CO-1.3, Policy CO-1.12, Policy CO-1.19, Policy CO-1.29)
Responsibility: Parks and Resources Department
Timeframe: 2029/2030

Action CO-A8 Prioritize the construction of multi-use trails that provide links between already established trails and bicycle routes. 🌐 (Policy CO-1.1, Policy CO-1.2, Policy CO-1.4)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A9 Develop a Park Plan for the McClellan/Davis Telecommunications Site to incorporate the property into the adjoining Grasslands Regional Park, including the establishment of an endowment and ongoing monitoring of endangered species. (Policy CO-1.1, Policy CO-1.10)
Responsibility: County Administrator's Office, General Services Department, Parks and Resources Department
Timeframe: 2008/2009

Action CO-A10 Pursue State grant funds to restore areas of the County impacted by illegal OHV activity, to protect areas from unauthorized use through enforcement, and to redirect users to the OHV park. (Policy CO-1.10, Policy CO-1.22)
Responsibility: Parks and Resources Department
Timeframe: 2019/2020

Action CO-A11 Pursue a countywide tax and/or bond assessment so that all residents contribute fairly to the planning, acquisition, operation, and maintenance of resource parks. (Policy CO-1.1, Policy CO-1.2, Policy CO-1.3, Policy CO-1.4)
Responsibility: County Administrator's Office
Timeframe: 2010/2011

Action CO-A12 Provide recreational uses that are river or creek dependent in locations directly on Cache Creek, Putah Creek, and the Sacramento River. Examples include fishing, canoeing, boating, and nature observation. With the exception of boat launches and docks, more active uses, such as parking, restrooms, and picnic areas, shall be located in areas away from the river and sensitive riparian habitat. (Policy CO-1.1, Policy CO-1.25, Policy CO-1.28, Policy CO-1.29)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A13 Cluster recreational uses at various locations along Cache Creek, Lower Putah Creek, and the Sacramento River, to reduce habitat dis-

turbance and provide efficient and cost-effective management by the County. (Policy CO-1.10)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A14 Design access to resource parks, whether by road or by trail, to go through a controlled entry point, wherever feasible. (Policy CO-1.10)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A15 Implement the Elkhorn Specific Plan to establish a resource park, which will establish public access to the Helvetia oak grove, create public access along the waterway north of County Road 22, and integrate management of both sites with the nearby Elkhorn Regional Park. (Policy CO-1.1, Policy CO-1.6, Policy CO-1.25)
Responsibility: Planning and Public Works Department
Timeframe: 2019/2020

Action CO-A16 Combine parks and trails with open space and wildlife conservation areas where appropriate. (Policy CO-1.1, Policy CO-1.10)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A17 Enhance parking and access at existing resource parks, including the Putah Creek fishing access, Cache Creek Canyon Regional Park, and the Camp Haswell/Otis Ranch property. (Policy CO-1.4)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A18 Include educational programs, materials, and signage in resource parks regarding water, geology, plants, animals, events, and people to strengthen an appreciation of local place and identity. (Policy CO-1.1)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A19 Establish a program for camp hosts at all resource parks, where feasible. (Policy CO-1.1, Policy CO-1.10)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A20 Allow for public agencies to establish and/or enhance habitat within specific areas of resource parks, consistent with the requirements of appropriate regulatory agencies, where an endowment is created to fund the monitoring and maintenance of the habitat. (Policy CO-1.1, Policy CO-1.15, Policy CO-1.26)

Responsibility: Parks and Resources Department
Timeframe: Ongoing

D. Biological Resources

1. Background Information

There are five broad categories of vegetation types in Yolo County: agricultural lands, grasslands, woodlands, riparian areas and wetlands, as shown in Figure CO-4. Each of these vegetation types are important habitat areas that support a range of species, including federally and State-listed species.

There are many species listed as threatened or endangered that were known to occur in Yolo County.⁴ These species are summarized in Table CO-2.

a. Agricultural Lands

Agricultural lands provide habitat value and habitat features. A flooded rice field provides habitat for waterfowl and giant garter snakes. An irrigation ditch provides nesting substrate for burrowing owls. Field crops provide the primary foraging for the county's growing population of Swainson's hawks. Typically, less intensively managed agricultural areas support the greatest diversity of wildlife species.

Yolo County has one of the highest Swainson's hawk nesting densities in California. Along with Solano, San Joaquin and in part Sacramento Counties, this region forms the core of the remaining population of hawks in the State. The hawk is dependent on agriculture, particularly large, contiguous agricultural areas.

b. Grasslands

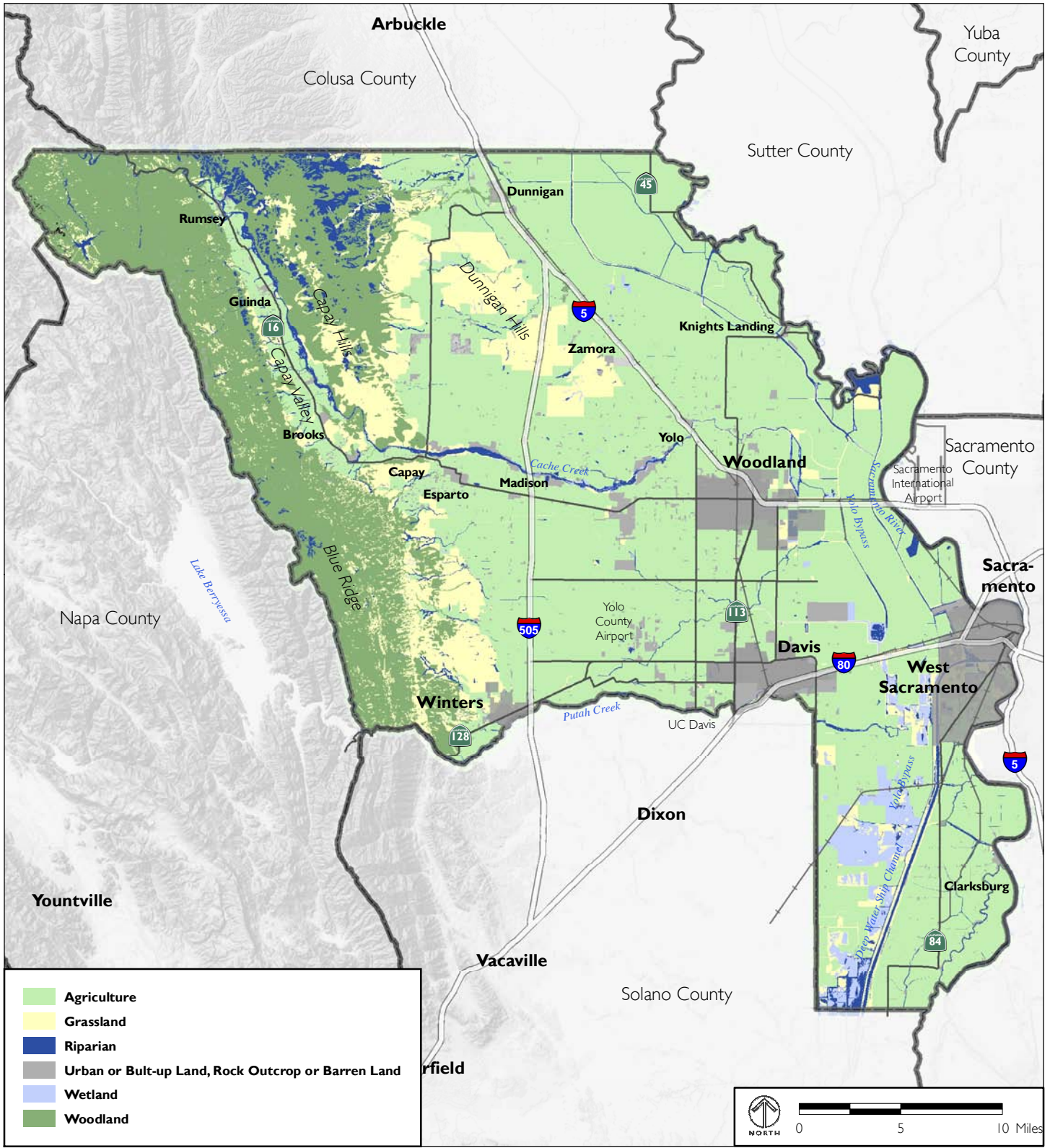
Annual grasslands provide foraging and refuge habitat. Animals graze on wild grass species such as wild oats, soft chess and barleys, and find cover in non-native forbs. Typical wildlife species that are known to occur in the Yolo grasslands are turkey vultures, red-tailed hawks and coyotes.

c. Riparian Corridors

The term "riparian corridor" refers to rivers or streams and the habitat areas along their banks. Riparian corridors provide for nesting, foraging, and refuge habitat; they support a multi-layered, vegetative community and diverse wildlife. Riparian corridors have particularly high habitat value despite being significantly altered and constrained. In addition to high habitat value and wildlife diversity, riparian corridors link together the open space framework and blocks of habitat, and they facilitate movement of species through less hospitable environments. Riparian corridors are habitat for fish, including salmon and steelhead, and are primary nesting habitat for birds such as Swainson's hawks.

⁴ County of Yolo, *Yolo NCCP/HCP Baseline Report*, July, 19, 2005.

COUNTY OF YOLO
 2030 COUNTYWIDE GENERAL PLAN
 CONSERVATION AND OPEN SPACE ELEMENT



Source: County of Yolo GIS, 2006.

FIGURE CO-4
 VEGETATIVE TYPES

TABLE CO-2 FEDERAL- AND STATE-LISTED THREATENED AND ENDANGERED SPECIES WITH POTENTIAL TO OCCUR IN YOLO COUNTY

Species Common Name	Federal Listed	State Listed
PLANTS		
Palmate-bracted birdsbeak	E	E
Colusa grass	T	E
Crampton's tuctoria	E	E
CRUSTACEANS		
Conservancy fairy shrimp	E	-
Vernal pool fairy shrimp	T	-
Vernal pool tadpole shrimp	E	-
INSECTS		
Valley elderberry longhorn beetle	T	-
AMPHIBIANS		
California tiger salamander	E	SSC
California red-legged frog	T	SSC
Giant garter snake	T	T
BIRDS		
Bald eagle	T	E
Swainson's hawk	-	T
American peregrine falcon	-	E
Western snowy plover	T	SSC
Greater sandhill crane	SSC	T
Western yellow-billed cuckoo	SSC	E
Bank swallow	-	T
FISH		
Sacramento River Winter-run Chinook salmon	E	E
Delta smelt	T	T
Central Valley spring-run Chinook salmon	T	T
Central Valley steelhead	T	-

Notes: - = no listing.

Federal-Listed

E = listed as endangered under the federal Endangered Species Act.

T = listed as threatened under the federal Endangered Species Act.

SC = species of concern; species for which existing information indicates it may warrant listing but for which substantial biological information to support a proposed rule is lacking.

State-Listed

E = listed as endangered under the California Endangered Species Act.

T = listed as threatened under the California Endangered Species Act.

SSC = species of special concern in California.

Source: Yolo Natural Heritage Program, *Yolo NCCP/HCP Baseline Report Administrative Working Draft*, July 2005, pages 50-59.

d. Woodlands

Woodlands provide nesting, roosting, foraging and refuge habitat. Within Yolo County there are four distinct types of woodlands: oak woodland, wooded savannah, scattered oaks in agricultural areas, and elderberry savannah. The elderberry savannah community is habitat for the elderberry bush, the host plant for the federally-listed valley elderberry longhorn beetle. The threatened valley elderberry longhorn beetle is listed at this time. However, delisting the beetle was recommended by the Sacramento Fish and Wildlife Office in October 2006. Valley oak, cottonwood, walnut, and willow trees are particularly important to the Swainson's hawk as nesting habitat.

e. Wetlands

Wetlands provide foraging, nesting and refuge habitat. Within Yolo County, there are four distinct types of wetland communities: marsh, vernal pool, pond/lake/open water, and alkali sinks. Marsh and pond/lake/open water communities are wet year-round, whereas vernal pool and alkali sinks are seasonal wetlands. Vernal pools and alkali sinks are State-listed Significant Natural Communities and support State and federally listed wildlife species.

f. Natural Communities Conservation Plan/ Habitat Conservation Plan

The County is a member of the Yolo County Habitat joint powers authority (JPA), which is responsible for developing a combined Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP), known as the Yolo Natural Heritage Program (Yolo NHP). Habitat conservation plans identify the most biologically significant regions and outline measures to protect the ecological integrity of valuable habitat areas. Conservation plans are required to address special-status species, plants and animals that are considered sufficiently rare by the scientific community and qualify for legal protection under State and/or federal Endangered Species Acts. The purpose of the Yolo NHP is to identify and protect the county's most biologically significant regions and most valuable habitat areas, in amounts and locations sufficient to sustain target species. The JPA also manages the Swainson's Hawk Interim Fee Mitigation Program, which purchases conservation easements to provide habitat for the threatened Swainson's hawk.

g. Yolo County Oak Woodland Conservation and Enhancement Plan

In January 2007, the Parks and Natural Resources Management Division published the *Yolo County Oak Woodland Conservation and Enhancement Plan*. Since 87 percent of the county's oak woodlands are privately-owned, the purpose of this plan is to help coordinate voluntary oak woodland conservation and enhancement efforts and guide oak woodland mitigation. The Plan establishes a program to identify areas in Yolo County with the highest value habitat. Conservation and enhancement of these high value areas is addressed by encouraging landowners to preserve these areas from urban and rural development. With this plan, the County is able to apply for State funding and other funding sources.

2. Policy Framework

GOAL CO-2	<u>Biological Resources.</u> Enhance biodiversity through the sustainable protection of species that are sensitive, rare, declining, unique or represent valuable local biological resources.
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- Policy CO-2.1 Adopt and implement the Natural Communities Conservation Plan/Habitat Conservation Plan developed through the Yolo Natural Heritage Program to preserve and enhance existing wildlife resources and open space.
- Policy CO-2.2 Preserve habitats that contribute to the county's rich biodiversity including grasslands, wetlands, oak woodlands, riparian, agriculture and aquatic.
- Policy CO-2.3 Emphasize the use of wildlife-friendly farming practices within the County's Agricultural Districts.
- Policy CO-2.4 Preserve and restore healthy riparian corridors.
- Policy CO-2.5 Protect and enhance both riparian and non-riparian wetlands.
- Policy CO-2.6 Protect, maintain, restore and enhance habitat for sensitive fish species, including the following: green sturgeon, Delta smelt, Central Valley steelhead, Chinook Salmon (Spring, Winter, and Fall runs), river lamprey, Pacific lamprey, Sacramento splittail, hardhead, California roach, Central Valley hitch, speckled dace, white sturgeon, Sacramento pike minnow, and Sacramento Perch.
- Policy CO-2.7 Cooperate with the Department of Fish and Game in inventorying streams with spawning and rearing habitat, evaluating those streams' existing and potential habitat value, and determining current and potential fish population levels.
- Policy CO-2.8 Encourage stream side property owners and appropriate public agencies to participate in fishery enhancement projects.
- Policy CO-2.9 Encourage all public land management agencies to preserve, maintain and enhance the fish habitat within their jurisdiction.
- Policy CO-2.10 Promote the collection of baseline data to determine the present populations of anadromous fish species in the County's streams.
- Policy CO-2.11 Support the continued use of prescribed burning to improve the quality of the county's watersheds for fish and wildlife habitat.

- Policy CO-2.12 Encourage activities that will improve or maintain anadromous fish habitat.
- Policy CO-2.13 Require the protection of riparian corridors to maintain beneficial streamside vegetation.
- Policy CO-2.14 Coordinate with regional efforts that seek to recover populations of federal and State-listed threatened and endangered species, as well as other rare species, to viable levels.
- Policy CO-2.15 Minimize loss and support the restoration of suitable habitat for rare, threatened and endangered species including but not limited to Swainson's hawk, valley elderberry longhorn beetle, burrowing owls, giant garter snake, and California tiger salamander.
- Policy CO-2.16 Encourage the restoration of native habitat on publicly-owned lands.
- Policy CO-2.17 Require clustering and creative site planning in new development areas to preserve and enhance areas of contiguous open space to the extent feasible.
- Policy CO-2.18 Ensure that open space buffers are provided between sensitive habitat and planned development.
- Policy CO-2.19 Support the use of managed fire in oak woodlands to encourage oak recruitment, where feasible, consistent with safety and air quality concerns.
- Policy CO-2.20 Promote the use of oak woodlands conservation banks to mitigate for both development impacts and greenhouse gas emissions under the proposed State carbon credit program. 🌍
- Policy CO-2.21 Allow no net loss of oak woodlands, alkali sinks, rare soils, or geological substrates that support rare endemic species. The limited loss of blue oak woodland and grasslands may be acceptable, where the fragmentation of large forests exceeding 40 acres is avoided and losses are mitigated to the extent feasible.
- Policy CO-2.22 Encourage the use of mosquito abatement methods that are compatible with protecting fish and wildlife, including native insect pollinators.
- Policy CO-2.23 Existing natural vegetation shall be conserved where possible and integrated into new development if appropriate.
- Policy CO-2.24 Urge agricultural landowners to incorporate wildlife-friendly habitat features, such as:

- Native-shrub hedgerows;
- Berms;
- Flooded agriculture, such as rice fields;
- Vegetated ditches, ponds and nest trees, to attract native pollinators and seed dispersers;
- Restoration of field margins (filter strips), ponds, and woodlands in non-farmed areas;
- Use of native species and grassland restoration in margin areas;
- Management and maintenance of irrigation and drainage canals to provide habitat, support native species, and serve as wildlife movement corridors;
- Winter stubble management to provide foraging; and
- Discourage the conversion of open ditches to underground pipes, which could adversely affect giant garter snakes and other species that rely on open waters.

Policy CO-2.25 Coordinate with the Natural Resource Conservation Service, UC Cooperative Extension, and other farm organizations to encourage farming practices and the management of private agricultural land that is supportive of wildlife habitat values.

Policy CO-2.26 Support the use of organic farming methods to minimize the use of products such as pesticides, fuels and fertilizers that degrade habitat and harm plants and wildlife. 🌍

Policy CO-2.27 Encourage the use of wildlife-friendly Best Management Practices to minimize unintentional killing of wildlife by restricting mowing during nesting season for ground-nesting birds or draining of wetlands before fledging of wetland species.

Policy CO-2.28 Promote wildlife-friendly farming through mechanisms such as farmland trusts, conservation easements and safe harbor-type agreements.

Policy CO-2.29 Prohibit development within a minimum of 100 feet from the banks of all lakes, perennial ponds, rivers, creeks, sloughs, and perennial streams. The setback will allow for fire and flood protection, a natural riparian corridor (or wetland vegetation), a planned recreational trail where applicable, and vegetated landscape for stormwater to pass through before it enters the water body. Exceptions to this action include irrigation pumps, roads and bridges, levees, docks, boat ramps, and similar uses.

- Policy CO-2.30 Support efforts to coordinate the removal of non-native, invasive vegetation within watersheds and replacement with native plants. 🌍
- Policy CO-2.31 Promote floodplain management techniques that increase the area of naturally inundated floodplains and the frequency of inundated floodplain habitat, restore some natural flooding processes, river meanders, and widen riparian vegetation, where feasible.
- Policy CO-2.32 Encourage the development of, and connection to, healthy marsh and riparian woodlands along the county's waterways and channels.
- Policy CO-2.33 Support efforts to reduce water temperatures via habitat restoration (e.g. increase shading vegetation) and water management (e.g. control of flows) that are compatible with the Integrated Water Resources Management Plan.
- Policy CO-2.34 Coordinate with local watershed groups including the Cache Creek Conservancy, Lower Putah Creek Coordinating Committee, Sacramento River Area Conservation Forum, and the Yolo Basin Foundation, to enhance biodiversity.
- Policy CO-2.35 Evaluate the need for additional water to support future riparian enhancement efforts, including the benefits of conjunctive management of groundwater and surface water resources.
- Policy CO-2.36 Balance the needs of aquatic and riparian ecosystem enhancement efforts with flood management objectives.
- Policy CO-2.37 Roads and road-related structures (bridges, culverts, retaining walls, abutments, etc.) located in or near watercourses shall be placed, designed, built, and landscaped so as to minimize the impact to riparian corridors, including reducing erosion during and after construction, accommodating flood flows, and minimizing grading on slopes greater than 20 percent.
- Policy CO-2.38 Promote native perennial grass habitat restoration and controlled fire management in grazing lands to reduce invasive species cover and enhance rangeland forage.
- Policy CO-2.39 Protect and enhance streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat and vernal pools in land planning and community design.
- Policy CO-2.40 Protect wetland ecosystems by minimizing erosion and pollution from grading, specifically during grading and construction projects.

Policy CO-2.41 Support completion of the CDFG Visitors and Interpretive Center near the Vic Fazio Wildlife Area.

Policy CO-2.42 Create partnerships with landowners, non-government organizations, and other public agencies to implement the Yolo County Oak Woodland Conservation and Enhancement Plan.

3. Implementation Program

Action CO-A21 Integrate the HCP/NCCP (Natural Heritage Program) into the General Plan as appropriate. Direct habitat mitigation to strategic areas that implement the Yolo Natural Heritage Program and/or build wildlife corridors. Avoid the conversion of agricultural areas and focus on lands where wildlife values and farming practices are complementary. (Policy CO-2.1)

Responsibility: Planning and Public Works Department

Timeframe: 2009/2010 and ongoing

Action CO-A22 Protect the habitat value and biological function of annual grasslands and oak woodlands areas. Avoid, where possible, development of the border region between the two habitat types, which is valuable to a variety of declining bird species and other wildlife. (Policy CO-2.2, Policy CO-2.16, Policy CO-2.38)

Responsibility: Parks and Resources Department

Timeframe: Ongoing

Action CO-A23 Create a program to encourage the planting of new oak seedlings in appropriate locations (e.g. more than a ½-mile from water sources used by livestock), and the protection of plantings from damage by animals and people until seedlings are of sufficient size. 🌍 (Policy CO-2.2, Policy CO-2.22)

Responsibility: Parks and Resources Department

Timeframe: Ongoing

Action CO-A24 Adopt a heritage tree preservation ordinance. 🌍 (Policy CO-2.2, Policy CO-2.22)

Responsibility: Parks and Resources Department

Timeframe: 2010/2011

Action CO-A25 Develop a program to encourage landowners to restore degraded creek resources by:

- Removing exotic species and establishing native riparian vegetation. 🌍

- Controlling uses that are damaging to the upland reaches of creeks.
- Adding exclusionary fencing to keep livestock out of streams and stream bank areas. (Policy CO-2.4, Policy CO-2.5, Policy CO-2.9, Policy CO-2.14, Policy CO-2.25)

Responsibility: Parks and Resources Department
Timeframe: 2011/2012

Action CO-A26 Establish criteria for the preservation of vernal pools that include the following:

- unusual features;
- habitat quality;
- watershed integrity;
- defensibility and buffering;
- size;
- plant and animal species variety; and
- presence of special status species.

(Policy CO-2.2, Policy CO-2.6, Policy CO-2.16)
Responsibility: Parks and Resources Department
Timeframe: 2013/2014

Action CO-A27 Prepare a complete inventory of identified streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat and vernal pools in community plans, area plans and specific plans. (Policy CO-2.2, Policy CO-2.8, Policy CO-2.11)

Responsibility: Parks and Resources Department
Timeframe: 2013/2014

Action CO-A28 Develop and implement a countywide program to rehabilitate and/or improve watersheds for the benefit of salmon and steelhead by encouraging landowner cooperation and participation and involving agencies and local groups. (Policy CO-2.2, Policy CO-2.7, Policy CO-2.8, Policy CO-2.13, Policy CO-2.15)

Responsibility: Parks and Resources Department
Timeframe: 2014/2015

Action CO-A29 Identify stream sections with important fish habitat restoration needs. Seek funding and participate in programs to address needs. (Policy CO-2.2, Policy CO-2.7, Policy CO-2.8, Policy CO-2.13, Policy CO-2.15)

Responsibility: Parks and Resources Department
Timeframe: 2014/2015

E. Mineral Resources

1. Background Information

The mineral resources section of this chapter provides goals, policies and actions that guide Yolo County in ensuring continued productivity and conservation of the County's geologic reserves.

Yolo County also has important soil resources, which can be inferred from the County's high agricultural productivity. Soils are considered to be an agricultural resource and therefore are discussed in the Agriculture Element. Expansive soils and other geologic hazards are covered in the Geologic section of the Health and Safety Element.

Yolo County has two primary mineral resources, mined aggregate and natural gas. These resources are located throughout the County. There are six aggregate mines and 25 natural gas fields currently in operation in Yolo County (see Figure CO-5).

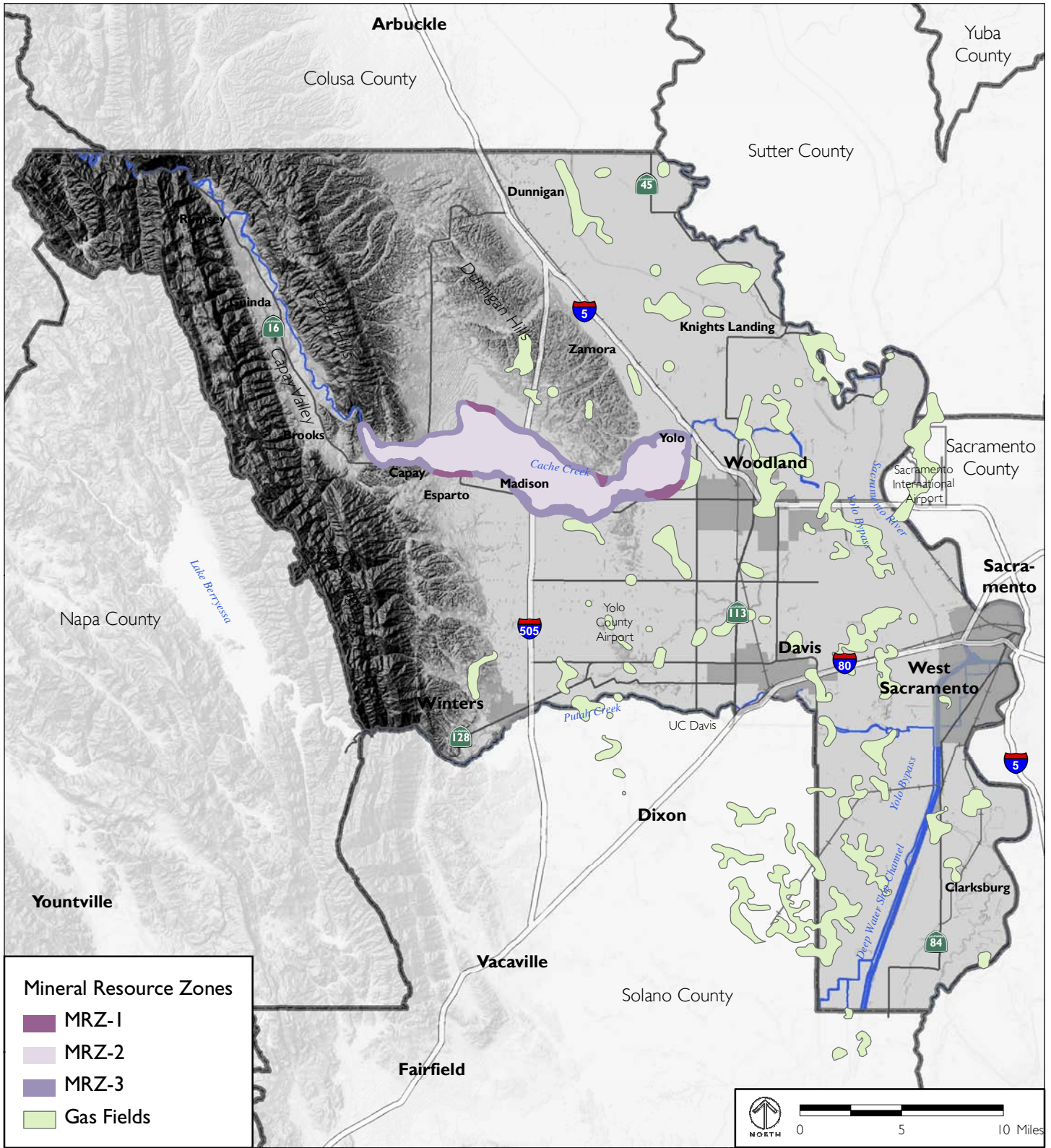
Mining in California is regulated by the Surface Mining and Reclamation Act (SMARA) of 1975. The purpose of SMARA is to identify the presence and significance of mineral resource deposits and to govern the excavation and reclamation of these areas. SMARA requires comprehensive management plans for operational mining areas. Mineral Resources Zones (MRZs) are used by the State to define areas containing valuable deposits. The California Division of Mines and Geology classifies MRZs according to the guidelines shown in Table CO-3.

There are 1,458 acres of MRZ-1, 18,452 acres of MRZ-2, and 8,220 acres of MRZ-3 in Yolo County. The Cache Creek MRZ-2 area is a significant high-grade aggregate deposit known to contain over 900 million tons of sand and gravel.

Mining in Yolo County is regulated by the Off Channel Mining Plan (OCMP), which is a component of the Cache Creek Area Plan (CCAP). The CCAP is incorporated into this General Plan. The focus of the CCAP is groundwater protection, agricultural preservation, restoration of Cache Creek, and limitation and regulation of mining.

The OCMP restricts the location and extent of new mining to lands outside of the riparian corridor, eliminates vested processing plants and facilities at the end of the mining period, creates a fund to address unforeseen environmental concerns, and adds various environmental protections and monitoring requirements to the base requirements of State law established by SMARA. The OCMP is implemented by two related ordinances: one regulating off-channel mining (mining outside of the creek channel) and one regulating reclamation of mined areas.

The CCAP also includes the Cache Creek Resources Management Plan (CCRMP) which includes policies and regulations to stabilize the channel, reduce erosion, protect



Source: County of Yolo GIS, 2006.

FIGURE CO-5
 MINERAL AND GAS RESOURCES

TABLE CO-3 **SMARA MINERAL RESOURCE ZONE CATEGORIES**

MRZ-1	Areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
MRZ-2	Areas underlain by mineral deposits where geologic data show that significant measured or indicated resources are present. Such areas contain discovered mineral deposits that are either measured or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information; or such areas may be inferred reserves or deposits that are presently sub-economic as determined by limited sample analysis, exposure, and past mining history.
MRZ-3	Areas containing known mineral deposits that may qualify as mineral resources. Further exploration work within these areas could result in the reclassification of specific localities into the MRZ-2 category.
MRZ-4	Areas where geologic information does not rule out either the presence or absence of mineral resources. The distinction between the MRZ-1 and MRZ-4 categories is important for land-use considerations. It must be emphasized that MRZ-4 classification does not imply that there is little likelihood for the presence of mineral resources, but rather there is a lack of knowledge regarding mineral occurrence. Further exploration work could well result in the reclassification of land in MRZ-4 areas to MRZ-3 or MRZ-2 categories.

Source: Department of Conservation State Mining and Geology Board, Guidelines for Classification and Designation of Mineral Lands.

infrastructure, improve habitat values, maintain flood capacity, and provide recreational opportunities. To support those goals, the County has adopted an In-Channel Maintenance Mining Ordinance. Although commercial mining is prohibited within Lower Cache Creek, carefully regulated and limited maintenance extraction is occasionally necessary to carry out the CCRMP.

Yolo County is one of the 28 counties in California that produce gas and oil. Most of the natural gas fields in Yolo County are located along the Yolo Bypass and the Sacramento River, with more fields located in the unincorporated area of Dunnigan Hills and at the foot of the Capay Hills (see Figure CO-5). Deep on-shore gas wells, reaching a depth of nearly 2 miles, are found near the Clarksburg area. In 2007, Yolo County produced over 3 million Mcf⁵ of natural gas and 187 barrels of oil.⁶ Further research is needed to determine the extent of present day natural gas reserves in Yolo County, particularly since natural gas has become a larger part of Yolo County's economy and an important tool to reduce vehicle air emissions as a part of the effort to address climate change.

⁵ Mcf is a gas standard equal to 1,000 cubic feet.

⁶ California State Department of Conservation Division of Oil, Gas and Geothermal Resources, Online Projection/Injection, accessed July 9, 2008.

2. Policy Framework

GOAL CO-3	<u>Mineral Resources.</u> Protect mineral and natural gas resources to allow for their continued use in the economy.
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- Policy CO-3.1 Encourage the production and conservation of mineral resources, balanced by the consideration of important social values, including recreation, water, wildlife, agriculture, aesthetics, flood control, and other environmental factors.
- Policy CO-3.2 Ensure that mineral extraction and reclamation operations are compatible with land uses both on-site and within the surrounding area, and are performed in a manner that does not adversely affect the environment.
- Policy CO-3.3 Encourage the extraction of natural gas where compatible with both on-site and surrounding land uses, and when performed in a manner that does not adversely affect the environment.
- Policy CO-3.4 Within the Delta Primary Zone, ensure compatibility of permitted land use activities with applicable, properly adopted natural gas policies of the Land Use and Resource Management Plan of the Delta Protection Commission.

3. Implementation Program

- Action CO-A30 Designate and zone lands containing identified mineral deposits to protect them from the encroachment of incompatible land uses so that aggregate resources remain available for the future. (Policy CO-3.1)
Responsibility: Planning and Public Works Department
Timeframe: 2009/2010
- Action CO-A31 Amend the County Code to allow landowners to apply for redesignation of their property when it can be demonstrated that mineral resources are not present or are not economically feasible. (Policy CO-3.1)
Responsibility: Parks and Resources Department
Timeframe: 2010/2011
- Action CO-A32 Encourage the responsible development of aggregate deposits along Cache Creek as significant both to the economy of Yolo County and the region. (Policy CO-3.1)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

- Action CO-A33 Encourage recycling of aggregate materials and products. 🌐 (Policy CO-3.1)
Responsibility: Parks and Resources Department, Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A34 Regularly review regulations to ensure that they support an economically viable and competitive local aggregate industry. (Policy CO-3.1)
Responsibility: Parks and Resources Department, County Administrator's Office
Timeframe: Ongoing
- Action CO-A35 Implement the Cache Creek Area Plan to ensure the carefully managed use and conservation of sand and gravel resources, riparian habitat, ground and surface water, and recreational opportunities. (Policy CO-3.1)
Responsibility: Parks and Resources Department
Timeframe: Ongoing
- Action CO-A36 Monitor updates to the State Mineral Resource classification map and incorporate any needed revisions to the County's zoning and land use map. (Policy CO-3.1)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A37 Coordinate individual surface mining reclamation plans so that the development of an expanded riparian corridor along Cache Creek may be achieved. (Policy CO-3.1)
Responsibility: Parks and Resources Department
Timeframe: Ongoing
- Action CO-A38 Prohibit commercial mining in or adjoining Putah Creek. (Policy CO-3.1, Policy CO-3.2)
Responsibility: Parks and Resources Department, Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A39 Maintain standards and procedures for regulating surface mining and reclamation operations so that potential hazards and adverse environmental effects are reduced or eliminated. (Policy CO-3.1, Policy CO-3.2)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

- Action CO-A40 Ensure that mined areas are reclaimed to a usable condition that is readily adaptable for alternative land uses, such as agriculture, wildlife habitat, recreation, and groundwater management facilities.
Responsibility: Parks and Resources Department (Policy CO-3.1)
Timeframe: Ongoing
- Action CO-A41 Regularly update surface mining and reclamation standards to incorporate changes to State requirements, environment conditions, and County priorities. (Policy CO-3.1)
Responsibility: Parks and Resources Department
Timeframe: Ongoing
- Action CO-A42 Consider the exploration, drilling, and extraction of natural gas as compatible with agriculture and open space uses. (Policy CO-3.3)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A43 Evaluate any impacts to identified natural gas fields as part of the development review process. (Policy CO-3.3)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A44 Require that abandoned gas wells be sealed in accordance with State of California Division of Oil, Gas and Geothermal Resources regulations and that all drilling or production facilities be removed. Further require that the disturbed surface area be reincorporated into adjoining agricultural operations or revegetated with native vegetation within one year after abandonment. (Policy CO-3.3)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A45 Maintain and implement local and State criteria and development standards for the production, injection, and drilling of natural gas deposits. Ensure that the construction and operation of natural gas storage facilities meet all safety standards of the State of California Division of Oil, Gas and Geothermal Resources. (Policy CO-3.3)
Responsibility: Development Services Division
Timeframe: 2010/2011

F. Cultural Resources

1. Background Information

Cultural resources include archaeological, paleontological and historic resources, including cemeteries and burials outside of cemeteries. Yolo County has examples of all of these, including prehistoric Native American sites, fossilized dinosaur remains, and historical man-made artifacts, buildings, sites and landmarks.

Before the establishment of what we now know today as Yolo County, a variety of people occupied the area. The first people to inhabit the Yolo region were two Native American tribes, the Patwin and, to a lesser extent, the Plains Miwok. Euro-American explorers, specifically the Spanish, came to this area as early as 1808 in search of new land on which to establish missions. Hunter/trapper groups also came to the area in search of valuable animal pelts to sell on an international market.

Settlements in the Yolo County region began during the first quarter of the 19th Century. The first American settlers were granted land from the Mexican Cession of 1848, during which the U.S. bought the region as eleven Mexican land grants. In the beginning of U.S. control, the region was a stable, isolated farming community that was transformed into a booming agricultural area by the California Gold Rush. Fremont was the first town, founded in 1849, along the confluence of the Sacramento and Feather Rivers. It was also the first County seat, after the formal establishment of Yolo County in 1850. The County seat was moved to Washington (Broderick) in 1851, to Cacheville (Yolo) in 1857, and back to Washington in 1860. In 1862, the County seat was permanently moved to the City of Woodland.

The artifacts and legends left by these groups are important cultural resources. The preservation of cultural resources is important because they offer important educational opportunities and they provide the County with a unique sense of identity.

A countywide record search was conducted at the Northwest Information Center (NWIC) of California Historical Resources Information System at Sonoma State University, and additional sources were also used, to generate a list of over 1,200 recorded cultural resources within Yolo County. Of these, 270 are archeological resources. The locations of these resources have been kept confidential.

There are two tribes with registered traditional land in Yolo County, the Cortina Band of Indians and the Rumsey Band of Wintun Indians. The Cortina band is not known to currently own property nor be active within the County. The Rumsey Tribe is very active in the County. They are a significant landowner and employer as the operators of the Cache Creek Casino Resort in Brooks.

The Rumsey Band of Wintun Indians is a recognized sovereign nation. As such, the Department of the Interior, Bureau of Indian Affairs, holds approximately 267 acres in trust for the Rumsey Tribe (the Tribe). One site contains houses for the tribal members, a community center, and the Yocha-De-He Preparatory School. The other site is home to

the Cache Creek Casino Resort. As sovereign lands, these areas are not a part of this General Plan. The Tribe also owns several thousand acres in and around the trust lands. These properties are not held in trust and are included within this General Plan.

In 1985, the Tribe began operation of a bingo hall on trust lands in the Capay Valley, which was expanded to include card games in 1993. Three years later, there was a second expansion of the bingo hall, including several restaurants. In 1999, following approval of the State Gaming Compact, the casino added slot machines and table games to its existing facility. A third expansion began in 2002 to create the Cache Creek Casino Resort, adding additional gaming space, restaurants, event center, club, 200-room hotel, spa, and a championship golf course. Today, the Resort is the second largest employer in Yolo County (after UC Davis) with more than 2,400 employees.

In 2002, the County and the Tribe approved an Intergovernmental Agreement to: (1) establish a mechanism for mitigation of the off-Reservation impacts expected to result from the Casino Resort expansion; (2) provide financial resources to help fund those mitigation measures; and (3) strengthen the government-to-government relationship between the County and the Tribe. The Agreement committed the Tribe to a wide range of measures to reduce the environmental impact of the expansion, as well as payment of up to \$5 million annually to the County to reimburse for the costs of the impacts. The County committed to developing a mitigation program to address impacts that occurred outside of trust lands, paid for through the funds provided by the Tribe, as recommended by a County Advisory Committee for Tribal Matters. Both parties agreed to hold regularly scheduled 2x2 meetings, open to the public.

In April, 2008, the Rumsey Tribe released a Draft Tribal Environmental Impact Report (TEIR) for a new expansion of the Resort. The proposal includes 467 new hotel rooms and 27 casitas, four additional restaurants, an event/conference center, retail shops, an expansion of the spa, additional gaming floor and office space, three new swimming pools, an additional parking garage, and related support facilities and utilities. The Final TEIR has not yet been released for this project.

Yolo County has conducted consultation with Native American tribes to aid in the protection of traditional and cultural places, or sacred sites, as required by Senate Bill 18 (SB 18). For the purposes of this element, the term “sacred site” refers to any specific, discrete, narrowly delineated location that is identified by a Native American tribe, or Native American individual determined to be an appropriate authoritative representative of a Native American religion, as sacred by virtue of its established religious significance to, or ceremonial use by, a Native American religion. In coordination with the two regional tribes, no sacred sites have been identified within the County.

Section 7050.5 of the California Health and Safety Code states that, when human remains are discovered, no further site disturbance shall occur until the County Coroner has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of

the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission within 24 hours.

In addition to the archeological listings identified above, Yolo County maintains its own list of local historical landmarks (see Table CO-4). There are also county listings on the National Register of Historic Places, the list of California State Historical Landmarks, and the list of California Points of Historical Interest (see Table CO-5).

Historical resources are preserved by individuals, various community groups and local organizations throughout Yolo County. These groups include the County Planning Commission/Historic Preservation Commission and various volunteer historical societies. The Planning Commission serves as the Historic Preservation Commission which is tasked with establishing criteria, guidelines and standards to pursue the goals outlined in the County's Historic Preservation Ordinance. The Commission is responsible for maintaining an inventory of all historical landmarks and districts within Yolo County and recommending future historic designations to the Board of Supervisors. Permits for demolition and for alterations to historic structures are decided by the Planning Commission.

There are a number of repositories of historical artifacts and information in Yolo County, including the Yolo County Historical Museum, the Yolo County Archives and Record Center and the Hattie Weber Museum. The Yolo County Historical Museum is located in Woodland. The museum provides tours of the architecturally historic building and displays furnishings and artifacts from Yolo County's past, specifically between 1850 and 1930, and includes outbuildings that feature artifacts associated with the agricultural industry and farming lifestyle.

The Yolo County Archives and Record Center maintains a comprehensive archive of historical materials dating back from the County's beginnings in 1850. A broad range of materials are stored at the Archive and Record Center, including County documents, original tax records, old newspapers, probates, wills, civil and criminal cases, original maps of Mexican land grants, personal scrapbooks, video reels and a complete set of meeting notes from every meeting of the Yolo County Board of Supervisors.

2. Policy Framework

GOAL CO-4 <u>Cultural Resources.</u> Preserve and protect cultural resources within the County.
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Policy CO-4.1 Identify and safeguard important cultural resources.

TABLE CO-4 COUNTY-RECOGNIZED HISTORICAL RESOURCES IN UNINCORPORATED YOLO COUNTY

Common Name	Address
Yolo Library	37750 Sacramento St, Yolo, CA
James Borach House	419 Sacramento St, Yolo, CA 95697
Yolo Town Hall	37735 Sacramento St, Yolo, CA
Joseph T. Cooper House	CR 16a (Between Cr 98a & Cr 98e) Box 545, Yolo, CA
Samuel Carpenter Cottage	CR 87e W Of The End, Winters, CA95694
William L. Seawright House	SH 128 (North Side E Of Cr 87d) Winters, CA95694
Adolph Oeste House	SE Corner Patwin Rd/ Russell Blvd, Davis, CA 95616
French Residence	37858 Russell Blvd, Davis, CA 95616
Hext Brothers Farmhouse	Box 2080, Rd. 97D & SH 128, Davis, CA 95616
Gotfried Schmisser House	CR 31 & CR 96 Box 2560 Davis, CA 95616
“Yolanda”	CR 99, Box 70, at NW Corner Cr 25a, Woodland, CA 95695
William Marcus Jackson House	20123 East St. Woodland, CA 95695
Frank N. Bullard House	CR 99, Box 150 (N of CR 27) Woodland, CA
Lorenz Heinz Ranch	38331-35 CR 29, Davis, CA
B. F. Conaway Ranch House	CR 103, Box 158 (N of CR 27), Woodland, CA 95695
Nelson Bump House (Aka “Lydia” House)	S. River Road next to County Line, Clarksburg, CA
Hamilton S. Connor House	CR 144, Box 283, Clarksburg, CA
Holland Land Company Headquarters	Netherlands Rd at Central Ave., Clarksburg, CA
Lawlor & Cosby General Merchandise	S. River Road (corner of Netherlands Ave.) Clarksburg, CA
Husick Hardware	S. River Road (S of Netherlands Ave) Clarksburg, CA
St. Joseph’s Church And Rectory	S. River Road, Box 52, Clarksburg, CA
Brown/Munk House	54080 S. River Road, Clarksburg, CA
Gordon Cemetery	CR 20 E of CR 92C, Yolo, CA 95697
Robert Baur House	CR 23, Box 516 East of CR 86a Madison, CA 95653
Esparto Railroad Station	16770 CR 87, Esparto, CA
Fred Wyatt House	924 and 928 Grafton, Esparto, CA 95627

TABLE CO-4 COUNTY-RECOGNIZED HISTORICAL RESOURCES IN UNINCORPORATED YOLO COUNTY (CONTINUED)

Common Name	Address
Clarence Johnson Home & Shop	26621 Caypay St., Esparto, CA
loof Building, Esparto	16651-63 Yolo Ave, Esparto, CA
Henry Mefford House	CR 25 near CR 86A Madison, CA 95653
Haines Store	1110 Main St. Madison, CA 95653
Union Church Of Dunnigan	3615 CR 89A, Dunnigan, CA 95937
St. Agnes Church	SE Corner Main and Second St., Zamora, CA 95698
John Snowball Mansion	613 Front St. Knights Landing, CA
Silas/ Edson House	509 3 rd St, Knights Landing, CA
Leithold's Drug Store, Knights Land- ing	223 Mill St. Knights Landing, CA
First National & Home Savings Bank	225 Mill St. Knights Landing, CA
Masonic Lodge, Knights Landing	414 3 rd St., Knights Landing, CA
Hanney/La Due House	602 Mill St., Knights Landing, CA
Guinda Corner Store	SH 16- SW Corner CR 53, Guinda, CA
Rumsey Town Hall	SH 16 (NE Corner Laurel St.) Rumsey, CA
James Carey Montgomery House	Rt, 1, Box 1140, Davis, CA 95616

Policy CO-4.2 Implement the provisions of the State Historical Building Code and Uniform Code for Building Conservation to balance the requirements of the Americans with Disabilities Act with preserving the architectural integrity of historic buildings and structures.

Policy CO-4.3 Encourage owners of historic resources to preserve and rehabilitate their properties. 🌍

Policy CO-4.4 Encourage historic resources to remain in their original use whenever possible. The adaptive use of historic resources is preferred when the original use can no longer be sustained. Older residences may be converted to office/retail use in commercial areas and to tourist use in agricultural areas, so long as their historical authenticity is maintained or enhanced.

TABLE CO-5 NATIONALLY- AND STATE-RECOGNIZED HISTORICAL RESOURCES IN UNINCORPORATED YOLO COUNTY

Place Type	Location
National Register of Historic Places	
Yolo Branch Library	200 Sacramento St., Yolo
Union Church of Dunnigan	3615 County Rd. 89A, Dunnigan
Rumsey Town Hall	CA 16 at Manzanita St., Rumsey
Nelson Ranch	CA 18C between CA 113 and 102, Woodland
William B Gibson House	512 Gibson Rd., Woodland
Canon School	0.5 mi. N of Brooks, Brooks
California State Historical Landmarks	
None in Unincorporated Yolo County	
California State Points of Historical Interest	
Russell Boulevard	Between Highway 113 and Road 98, Davis
Mary's Chapel	Intersection of Road 15 and Road 98
St. Agnes Church	Road 98, Zamora
Capay School	Route 16, Capay
Leonidas Taylor Monument	West bank of the Sacramento River, northwest of Sacramento
Yolo County Courthouse	725 Court Street, Woodland
Yolo County Historical Museum	512 Gibson Road, Woodland

Source: National Register of Historic Places, the list of California State Historical Landmarks, and the list of California Points of Historical Interest, 2008

- Policy CO-4.5 Increase knowledge of historic preservation through public education and outreach programs.
- Policy CO-4.6 Support historically-oriented visitor programs at the local and regional level through the Yolo County Visitor's Bureau and similar efforts.
- Policy CO-4.7 Encourage the identification of historic resources through the integrated use of plaques and markers.

- Policy CO-4.8 Explore opportunities for promoting heritage tourism, including cooperation with regional and State marketing efforts.
- Policy CO-4.9 Promote the use of historic structures as museums, educational facilities, or other visitor-serving uses.
- Policy CO-4.10 Encourage voluntary landowner efforts to protect cultural resources consistent with State law.
- Policy CO-4.11 Honor and respect local tribal heritage.
- Policy CO-4.12 Work with culturally-affiliated tribes to identify and appropriately address cultural resources and tribal sacred sites through the development review process.
- Policy CO-4.13 Avoid or mitigate to the maximum extent feasible the impacts of development on Native American archaeological and cultural resources.
- Policy CO-4.14 Within the Delta Primary Zone, ensure compatibility of permitted land use activities with applicable properly adopted cultural resources policies of the Land Use and Resource Management Plan of the Delta Protection Commission.

2. Implementation Program

- Action CO-A46 Update the Historic Preservation Ordinance on a regular basis to be consistent with applicable federal, State and local Historic Preservation requirements. (Policy CO-4. Policy CO-4.2)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A47 Update the historic resources surveys (including the Historic Features Inventory), as needed, to reflect changes due to the passage of time, loss of existing historic resources, and the availability of new or reinterpreted information. (Policy CO-4.1)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A48 Identify and establish historic districts, where appropriate, to better preserve individual historical resources and their context. (Policy CO-4.1, Policy CO-4.4)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing

- Action CO-A49 Establish an inventory and map of known significant historic and cultural resources, as well as sensitive areas where such resources are likely to occur. This information is protected as confidential under State law. (Policy CO-4.1)
Responsibility: Planning and Public Works Department
Timeframe: 2011/2012
- Action CO-A50 Conduct historic resource surveys as a part of community and specific plan preparation to document and identify those resources that meet the criteria for listing at the local level, on the California Register of Historical Resources, and on the National Register of Historic Places. (Policy CO-4.1)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A51 Review and monitor demolition permits, grading permits, building permits, and other approval procedures to reinforce preservation goals. (Policy CO-4.1, Policy CO-4.2, Policy CO-4.3)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A52 Establish design guidelines for historic resources based on established federal and State standards and guidelines to address the adaptive reuse and modification of historic resources. (Policy CO-4.1, Policy CO-4.2, Policy CO-4.4)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A53 Preserve historical records and make them accessible to the public by maintaining the Yolo County Archives and Record Center. (Policy CO-4.1, Policy CO-4.5)
- Provide additional space for accommodation of the growing Archives collections
 - Ensure that the collection is housed in an appropriate archival manner
- Responsibility: County Library, General Services Department
Timeframe: Ongoing
- Action CO-A54 Require cultural resources inventories of all new development projects in areas where a preliminary site survey indicates a medium or high potential for archaeological, historical, or paleontological resources. In addition, require a mitigation plan to protect the resource before the issuance of permits. Mitigation may include:

- Having a qualified archaeologist or paleontologist present during initial grading or trenching;
- Redesign of the project to avoid historic or paleontological resources;
- Capping the site with a layer of fill; and/or
- Excavation and removal of the historical or paleontological resources and curation in an appropriate facility under the direction of a qualified professional. (Policy CO-4.1, Policy CO-4.13)

Responsibility: Planning and Public Works Department

Timeframe: Ongoing

Action CO-A55 Require that discretionary projects which involve earth disturbing activities on previously undisturbed soils in an area determined to be archaeologically sensitive perform the following:

- Enter into a cultural resources treatment agreement with the culturally affiliated tribe.
- Retain a qualified archaeologist to evaluate the site if cultural resources are discovered during the project construction. The archaeologist will have the authority to stop and redirect grading activities, in consultation with the culturally affiliated tribe and their designated monitors, to evaluate the significance of any archaeological resources discovered on the property.
- Consult with the culturally-affiliated tribe to determine the extent of impacts to archaeological resources and to create appropriate mitigation to address any impacts.
- Arrange for the monitoring of earth disturbing activities by members of the culturally affiliated tribe, including all archaeological surveys, testing, and studies, to be compensated by the developer.
- Implement the archaeologist's recommendations, subject to County approval.
- Agree to relinquish ownership of all artifacts that are found on the project area to the culturally affiliated tribe for proper treatment and disposition. (Policy CO-4.1, Policy CO-4.13)

Responsibility: Planning and Public Works Department

Timeframe: Ongoing

Action CO-A56 Require that when cultural resources (including non-tribal archeological and paleontological artifacts, as well as human remains) are encountered during site preparation or construction, all work within the vicinity of the discovery is immediately halted and the area protected from further disturbance. The project applicant shall immediately notify the

County Coroner and the Planning and Public Works Department. Where human remains are determined to be Native American, the project applicant shall consult with the Native American Heritage Commission (NAHC) to determine the person most likely descended from the deceased. The applicant shall confer with the descendant to determine appropriate treatment for the human remains, consistent with State law. (Policy CO-4.1, Policy CO-4.11, Policy CO-4.12, Policy CO-4.13)

Responsibility: Planning and Public Works Department, Sheriff-Coroner's Office

Timeframe: Ongoing

Action CO-A57 Prohibit the removal of cultural resources from the project site except by a qualified consultant and after the County planning staff have been notified. Prehistoric resources include chert or obsidian flakes, projectile points, mortars, pestles, dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or adobe foundations or walls, structures and remains with square nails, and refuse deposits often in old wells and privies. (Policy CO-4.1, Policy CO-4.11)

Responsibility: Planning and Public Works Department

Timeframe: Ongoing

Action CO-A58 Consult with culturally-affiliated tribes prior to amending the General Plan and adopting or amending specific plans, consistent with State law. (Policy CO-4.12, Policy CO-4.13)

Responsibility: County Administrator's Office, Planning and Public Works Department

Timeframe: Ongoing

Action CO-A59 Confer with culturally-affiliated tribes prior to designating open space that includes any identified cultural places and develop a treatment and management plan for their preservation. (Policy CO-4.12, Policy CO-4.13)

Responsibility: County Administrator's Office, Planning and Public Works Department

Timeframe: Ongoing

Action CO-A60 Refer all development proposals that may adversely affect cultural resources to the Northwest Information Center (NWIC) at Sonoma State University for review and comments. The NWIC will identify the presence or absence of known cultural resources and/or previously performed studies in or near a given project area and will offer recommendations regarding the need for additional studies, where necessary. If the NWIC recommends further study, the project applicant

shall contract with a qualified professional to conduct the study and make recommendations designed to avoid or minimize adverse impacts on cultural or historic resources and indicate whether further investigation is needed. All studies shall be completed and submitted to the County prior to the completion of any environmental document for the project. (Policy CO-4.1, Policy CO-4.11)

Responsibility: Planning and Public Works Department

Timeframe: Ongoing

Action CO-A61 Refer draft environmental documents, including any studies and recommended mitigation measures, to the appropriate culturally-affiliated tribes for review and comment as part of the public review process. (Policy CO-4.1, Policy CO-4.11, Policy CO-4.12)

Responsibility: Planning and Public Works Department

Timeframe: Ongoing

G. Water Resources

There are many significant water resources in Yolo County. Major rivers, creeks, streams, drainages and sloughs running through the county irrigate agricultural fields, control floods, transport water supplies to users throughout the county and provide wildlife habitat. This section discusses the major sources of surface and groundwater supply in the county, issues related to water quality, and the important planning and regulatory efforts that are concerned with these resources. Other water-related issues, including those related to water distributions systems, water treatment, and water-related infrastructure, are addressed in the Infrastructure and Services Element of this General Plan.

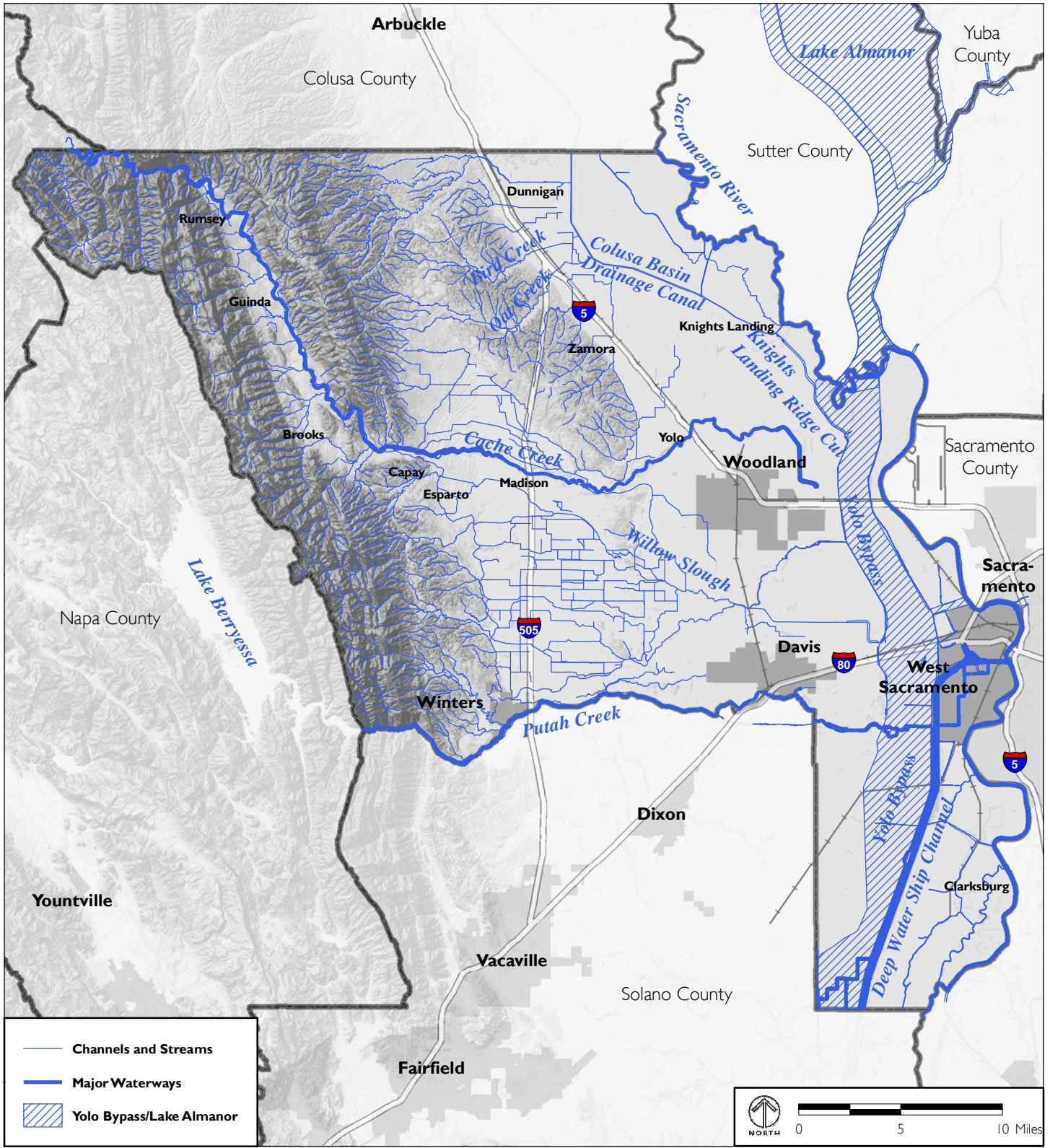
1. Background Information

a. Major Water Sources

i. Surface Water

The major watersheds and surface water features in Yolo County include Cache Creek, Putah Creek, the Sacramento River, and the Yolo Bypass. These waterway areas are discussed below and are shown in Figure CO-6.

- **Cache Creek** is the outfall of Clear Lake, which is located in Lake County 50 miles northwest of Yolo County. The north fork of Cache Creek includes the 200,000-acre-foot Indian Valley Reservoir, also located in Lake County.
- **Putah Creek** begins in Lake County, flows through Napa County and the Lake Berryessa Reservoir into southern Yolo County, and eventually into the Yolo Bypass.
- **Sacramento River**, a 447-mile-long river, begins in Shasta County and passes west of the City of Sacramento. Its tributaries include the Pit, Feather, McCloud and American rivers.



Source: County of Yolo GIS, 2006.

FIGURE CO-6

MAJOR WATERWAYS AND SURFACE WATERS

- The **Yolo Bypass** is a 41-mile-long, several-mile-wide levied floodplain that carries flood flows from the Sacramento River to the Sacramento Delta. Its tributaries include Cache Creek, Putah Creek, Willow Slough and the Knights Landing Ridge Cut.

In addition to these natural sources, an extensive network of sloughs, irrigation canals and drainage ditches are located within the county. The major slough and canal facilities include:

- **Tehama-Colusa Canal** – transports water south from Tehama County into Yolo County, terminating near Dunnigan.
- **Colusa Basin Drain** – flows from the Tehama-Colusa Canal and Dunnigan Hills to the Knights Landing outfall that discharges to the Sacramento River.
- **Willow Slough** – minor watercourse that drains much of the area between Cache and Putah Creeks.
- **Winters Canal** – primary source of irrigation for most of the County between Cache and Putah Creeks.
- **Adams Canal** – carries water from Cache Creek north to Hungry Hollow and Yolo-Zamora area.

Yolo County has no natural lakes. However, as a result of aggregate mining and reclamation activity along Cache Creek, several reclaimed lakes will be created and eventually become a part of the future planned Cache Creek Parkway. The Cache Creek Area Plan contains policies and regulations addressing the management of these future resources.

ii. Water Quality

The Yolo County Flood Control and Water Conservation District performs studies on the physical and chemical characteristics of Cache Creek. Chemicals such as boron, diazinon, mercury and unknown toxics are agricultural pollutants found in Yolo County waterways. Studies on the physical and chemical characteristics of the Sacramento River and its tributaries within Yolo County have found high concentrations of nutrients and contaminants, particularly after major storms. In addition to agricultural pollutants, high concentrations of nutrients and chemicals are thought to originate from abandoned mines.⁷

The Central Valley Regional Water Quality Control Board (CVRWQCB) has adopted Total Maximum Daily Loads (TMDLs) for mercury in Cache Creek. A separate TMDL is currently under review for mercury in the Sacramento-San Joaquin Delta. The CVRWQCB has also adopted TMDLs for diazinon in the Sacramento River and the Delta.

⁷ United States Geological Survey, *Sacramento River Basin Nation Water-Quality Assessment Program*, http://ca.water.usgs.gov/sac_nawqa/index.html, accessed July 9, 2008.

iii. Groundwater

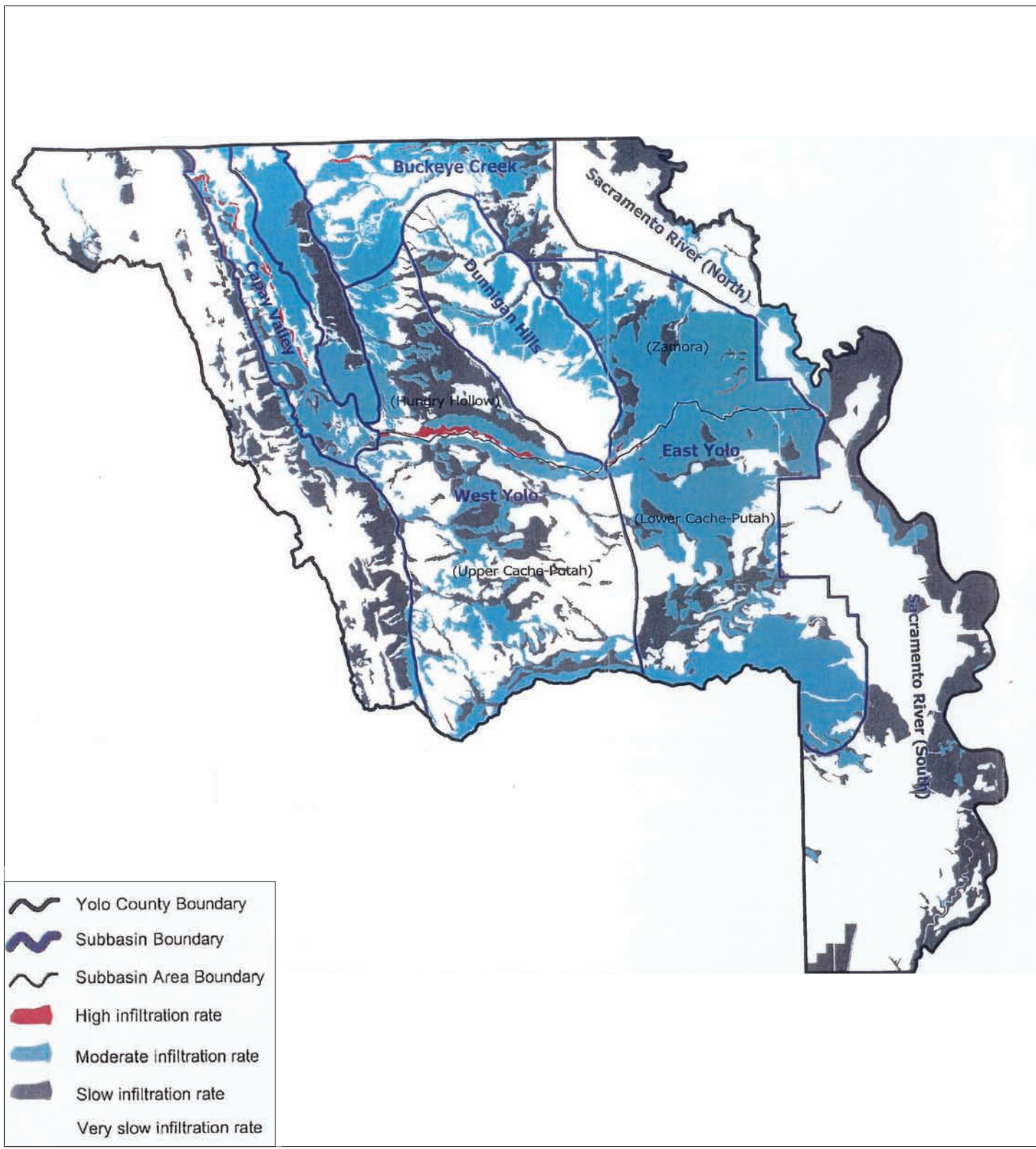
Yolo County has an extensive system of shallow and deep aquifers on which the county depends for domestic water supply. Wells in Yolo County are increasingly tapping deeper aquifers due to issues of subsidence and contamination, which are discussed below.

The County has six groundwater sub-basins, which are shown in Figure CO-7. The East Yolo sub-basin, which covers the eastern portion of the county from south of Dunnigan to Davis, provides the greatest supply of residential water extraction. The other five sub-basins are the Capay Valley, Buckeye Creek, Dunnigan Hills, West Yolo and Sacramento River sub-basins.

Recharge of aquifers typically occurs along the streambeds of creeks and canals. Recharge occurs naturally, and also through reservoir releases, such as the release of stored water from the Indian Valley Reservoir into Cache Creek during low flows periods. The Indian Valley Reservoir was built by Yolo County residents so that farmers could use surface water rather than pump groundwater, to reduce overdraft and subsidence.

Several issues face the county in its use of groundwater. Subsidence can cause permanent loss of aquifer capacity when upper soil layers collapse. Subsidence can also compromise wells, irrigation canals, levees and highways. The Yolo Subsidence Monitoring Project (YSMP) is a collaborative effort between the County, the Cities of Woodland and Davis, UC Davis, the U.S. Bureau of Reclamation, the Army Corps of Engineers, and the California Department of Water Resources. The YSMP includes 47 stations that are monitored to determine where subsidence may be occurring and to what extent. As a result of their work, it appears that land subsidence due to overdraft of the shallow aquifer is a significant concern in the East Yolo sub-basin and, to a lesser degree, throughout other parts of the county. The greatest amount of subsidence, approximately 4 feet, has occurred east of Zamora, where irrigation needs are supplied exclusively from groundwater because no surface water sources exist.

In addition to subsidence, contamination of groundwater is also an issue in parts of the County. Coliform, nitrates and dissolved salts are primary concerns. Coliform and nitrates are a consequence of failing, underperforming and/or over-concentration of septic systems, such as in Dunnigan, North Davis Meadows, Madison and rural areas around the County. Nitrate contamination is also associated with over-fertilization of agricultural crops, golf courses, parks, and landscaping, and may be associated with cemeteries, feed lots, and agricultural disposal areas. Dissolved salts are produced from evaporation of irrigation water and evapotranspiration of soil moisture and shallow groundwater. These salts can accumulate, resulting in groundwater contamination. Arsenic and other soil minerals are naturally occurring contaminants that leach into streams, such as along Cache Creek and particularly in the Wild Wings County Service Area. Although groundwater supplies in the county generally meet current drinking water standards,



Source: Soil Survey Geographic (SSURGO) Database, U.S. Department of Agriculture, Natural Resource Conservation Service.

FIGURE CO-7
GROUNDWATER BASINS AND INFILTRATION RATES

continued groundwater contamination may become problematic for municipal, industrial and agricultural uses.

Figure CO-7 also identifies all rivers, creeks, streams, and other areas where groundwater recharge occurs, based on degree of infiltration.

iv. Reclaimed Water

Reclaimed water from wastewater treatment facilities is used in Yolo County. Cache Creek Casino Resort and the Wild Wings County Service Area use treated tertiary wastewater for golf course irrigation. Other uses of reclaimed water include irrigation of agricultural fields and landscaping. The State regulates specific uses of reclaimed water. The level of prior treatment determines how the reclaimed water can be used. Tertiary treatment is generally required for human contact, as on golf courses and ornamental landscaping, or human consumption as on food crops. Secondary treatment may be adequate for other uses, such as fodder crops.⁸

The Regional Water Quality Control Board (RWQCB) also restricts discharge of reclaimed water to land. Where land discharge is allowed, it is regulated in order to protect groundwater resources. Nitrate removal is required in many cases where the reclaimed water will percolate to groundwater basins that are used for domestic water supply, although secondary treatment may be sufficient depending on soil conditions.⁹

b. Water Planning and Regulation

To ensure high quality and adequate supply, water resources in Yolo County are regulated by federal and State laws, as well as local water management plans. In 2007, the County adopted the Integrated Regional Water Management Plan (IRWMP). The IRWMP was developed by the Water Resources Association of Yolo County (WRA), in conjunction with the California Department of Water Resources (DWR). The IRWMP serves as an update to the County's 1992 water management plan, addressing major topics such as water supply, water quality, flood management, enhancement of aquatic and riparian habitat, and improvement of the County's recreational opportunities.

Besides the IRWMP, the County implements a number of planning documents to protect its water resources. The Yolo County Natural Heritage Program, previously mentioned in the Biological Resources section of this element, also serves as a water management plan with respect to wetlands and riparian corridors, in compliance with the Federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA). The Yolo County NHP does not, however, address aquatic species or their habitat. This plan is currently being updated by the Yolo county Habitat Joint Powers Authority and is expected to be published in 2009.

⁸ California Code of Regulations, Title 22, Division 4, Chapter 3, Article 3.

⁹ California Code of Regulations, Title 22, Division 4, Chapter 3, Article 3.

The Cache Creek Area Plan protects water supply and aquatic habitat from contamination associated with mining. This plan, last updated in 2002, focuses on regulating off channel aggregate mining, improving channel stability, reducing erosion, maintaining flood capacity and restoring habitats.

The Yolo County Stormwater Management Program (SWMP) was developed by the Yolo County Planning and Public Works Department in conjunction with other Yolo County agencies. The SWMP analyzes various activities in urbanized areas that are sources of pollutants in stormwater and identifies Best Management Practices to reduce their levels. The SWMP responds to the issues and regulations of the 1987 Clean Water Act.

c. Domestic Water

Most of Yolo County's domestic water supplies originate from groundwater. West Sacramento is the only urban area that currently relies on surface water rather than groundwater as its primary source of water supply. The cities of Woodland and Davis, as well as UC Davis, are working on a joint proposal to obtain municipal water from surface supplies in the Sacramento River. Although the most common problem associated with groundwater in municipal supplies is the hardness (mineralization), contamination of the aquifer with coliform, nitrates, naturally occurring arsenic, and fuel from leaking underground storage tanks can be a serious issue in some parts of the County.

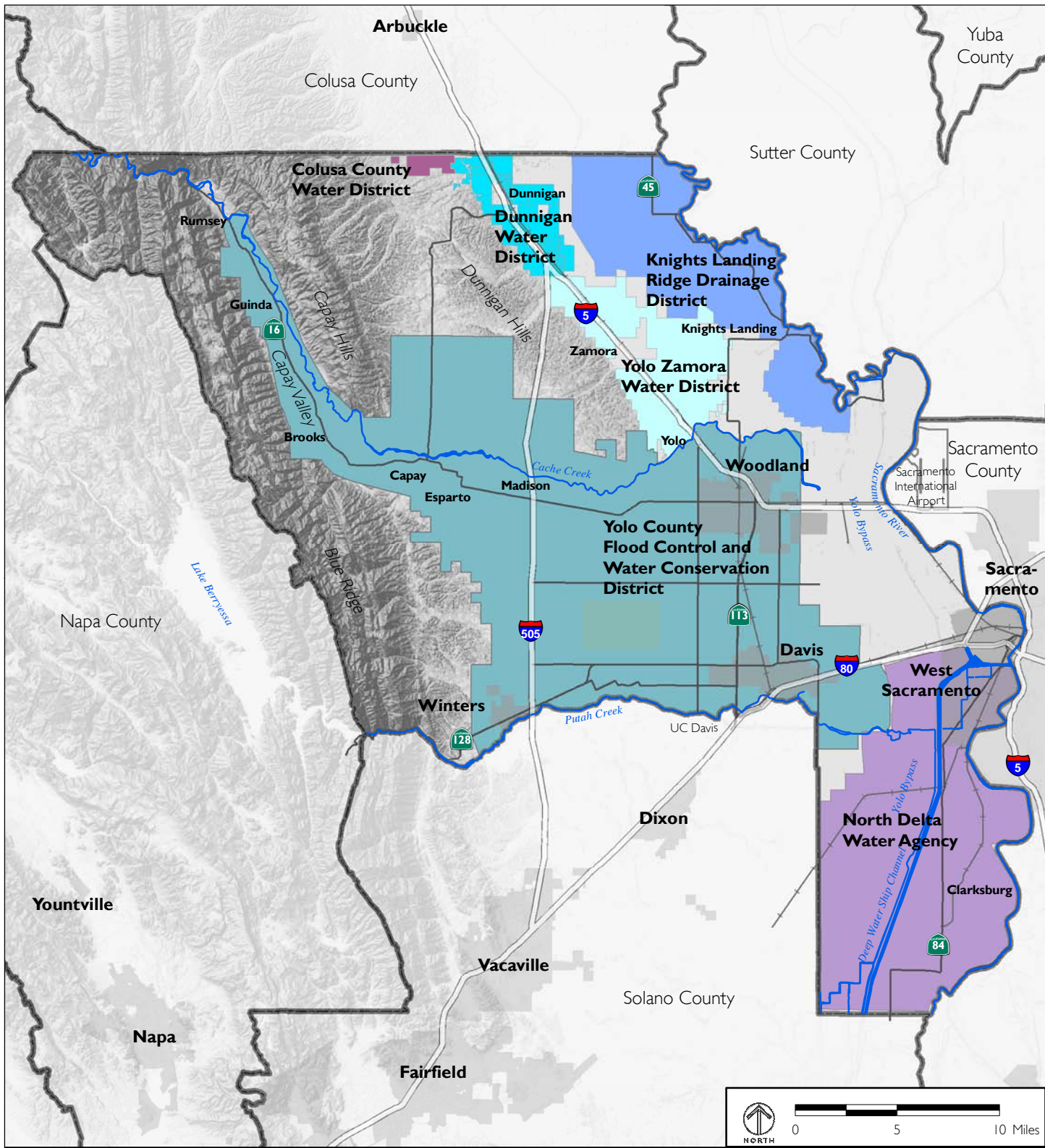
Table CO-6 shows current conditions with regards to domestic water systems in the unincorporated areas of the county. In addition, the Rio Villa public housing in Winters and the Davis Migrant Center both have private water systems. The rest of the county relies on private on-site wells. Yolo County has also has six major water districts that focus primarily on the delivery of irrigation water for agricultural purposes, although there has been discussion about one or more of the districts providing municipal water. The water districts are: Dunnigan Water District, Yolo-Zamora Water District, Yolo County Flood Control and Water Conservation District, North Delta Water Agency, Colusa Dain Mutual Water Company, and Colusa County Water District. Water agency boundaries are shown in Figure CO-8.

County regulations, contained in Title 7, Chapter 1, Section 7-1.04 of the Yolo County Code, require fire sprinkler systems in all new residential development and new non-residential buildings over 5,000 square feet or over three stories in height. Because most existing water systems in Yolo County do not operate at pressures sufficient to maintain a fire sprinkler system for commercial structures, every unincorporated community in the county needs to upgrade its water system to meet these requirements.

Other water supply and quality issues that Yolo County must address include increasingly stringent water quality regulations, availability of adequate water supplies during severe drought conditions, subsidence problems as a result of groundwater overdraft, rising costs of providing water services, and increasingly complex and expensive regulatory compliance. Many of these issues have been addressed through the Integrated

TABLE CO-6 WATER SYSTEM CONDITIONS BY UNINCORPORATED AREA

Unincorporated Area(s)	Water System Conditions
Clarksburg	No community water system. Individual wells.
Dunnigan	No community water system. Private water systems serve the two mobile home parks. The Dunnigan Water District provides supplement non-potable fire flow for some customers. Nitrates have been a problem in the past with some wells in the community.
Esparto	Community water system based on groundwater, which is managed by a Community Services District. Water pressure has been a recent concern, especially regarding commercial fire flow.
Knights Landing	Community water system based on groundwater, which is managed by a Community Services District. Water pressure has been a recent concern, especially regarding commercial fire flow.
Madison	Community water system based on groundwater, which is managed by a Community Service District. New well recently installed to address previous problems with coliform and nitrate contamination. Water pressure has been a recent concern, especially regarding commercial fire flow.
Monument Hills	Wild Wings development has a community water system based on groundwater, which is managed by a County Service Area. Arsenic is a potential problem. The remainder of the Monument Hills area relies on individual wells.
West Kentucky	Private water system based on groundwater. System improvements needed.
Willowbank, El Macero, North Davis Meadows, Royal Oaks	Willowbank, El Macero, and North Davis Meadows all have separate water systems managed by County Service Areas, which have been integrated with the City of Davis community water system. Royal Oaks is also served by the City of Davis. Nitrates have been a problem in North Davis Meadows.
Yolo	Community water system based on groundwater, which is managed by a Community Service District. Water pressure has been a recent concern, especially regarding commercial fire flow.
Zamora, Binning Farms, Patwin Road, West Plainfield, Willow Oak	No community water system. Individual wells.
Davis	Community water system based on groundwater. Davis is working with Woodland and UC Davis to acquire surface water from the Sacramento River. Hardness of the water is an ongoing issue.
West Sacramento	Community water system based on surface water from the Sacramento River. Hardness of the water is an ongoing issue.
Winters	Community water system based on groundwater.
Woodland	Community water system based on groundwater. Woodland is working with Davis and UC Davis to acquire surface water from the Sacramento River. Hardness of the water is an ongoing issue.



Source: Yolo County LAFCO, 2008.

FIGURE CO-8

WATER AGENCY BOUNDARIES

Water Resources Management Plan (IWRMP) prepared by the Water Resources Association, a multi-agency effort to coordinate water policies among the various jurisdictions of Yolo County. Currently, the County is also considering additional ordinances and/or the formation of a countywide water agency to provide enhanced groundwater resource management.

2. Policy Framework

GOAL CO-5 Water Resources. Ensure an abundant, safe, and sustainable water supply to support the needs of existing and future generations.

- Policy CO-5.1 Coordinate with water purveyors and water users to manage supplies to avoid long-term overdraft, water quality degradation, land subsidence and other potential problems. 🌍

- Policy CO-5.2 Support projects that provide reliable and sustainable surface water from a variety of energy efficient sources. Sources should be sufficient to serve existing and planned land uses in prolonged drought periods and protect natural resources and surface water flows. 🌍

- Policy CO-5.3 Strive to manage the County’s groundwater resources on a sustainable yield basis that can provide water purveyors and individual users with reliable, high quality groundwater to serve existing and planned land uses during prolonged drought periods. 🌍

- Policy CO-5.4 Support educational programs to educate the public about practices and programs to minimize water pollution and reduce water usage. 🌍

- Policy CO-5.5 Integrate water conservation and water quality protection into all aspects of the planning and development process. 🌍

- Policy CO-5.6 Improve and protect water quality for municipal, agricultural, and environmental uses.

- Policy CO-5.7 Support mercury regulations that are based on good science and reflect an appropriate balancing of sometimes competing public values including health, food chain, reclamation and restoration of Cache Creek, sustainable and economically viable Delta agriculture, necessary mineral extraction, flood control, erosion control, water quality, and habitat restoration.

- Policy CO-5.8 Support efforts to reduce the accumulation of methyl mercury in fish tissue in Cache Creek and the Delta, as well as the consumption of fish with high levels of methyl mercury.

- Policy CO-5.9 Within the Delta Primary Zone, ensure compatibility of permitted land use activities with applicable, properly adopted water policies of the Land Use and Resource Management Plan of the Delta Protection Commission.
- Policy CO-5.10 Encourage water purveyors to develop plans for responding to droughts and the effects of global climate change, including contingency plans, the sharing of water resources to improve overall water supply reliability, and the allocation of water supply to priority users. 🌍
- Policy CO-5.11 Facilitate and encourage the development of new reliable future sources of supply consistent with local land use plans and regional water needs, including the completion of the Tehama-Colusa Canal.
- Policy CO-5.12 Support the integrated management of surface and groundwater, stormwater treatment and use, the development of highly treated wastewater, and desalinization where feasible.
- Policy CO-5.13 Ensure that regional, State, and federal water projects protect local water rights and areas of origin.
- Policy CO-5.14 Require proposals to convert land within or near areas identified as having a moderate to very high recharge capability to uses other than agriculture, open space, or habitat to demonstrate that groundwater recharge will not be significantly diminished.
- Policy CO-5.15 Encourage new development and redevelopment to use reclaimed wastewater, where feasible, to augment water supplies and to conserve potable water for domestic purposes. 🌍
- Policy CO-5.16 Require significant discretionary projects to demonstrate adequate long-term and sustainable water supplies by preparing a verified water supply assessment. The assessment shall demonstrate a long-term, reliable water supply satisfactory under normal and above normal rainfall conditions, as well as drought conditions. 🌍
- Policy CO-5.17 Require new development to be designed such that nitrates, lawn chemicals, oil, and other pollutants of concern do not impair groundwater quality.
- Policy CO-5.18 Encourage developers to build new homes to higher water-efficiency standards than already required. 🌍
- Policy CO-5.19 Strive for “water-neutral” development with new water demand offset by efficiency improvements elsewhere in the system. Require all new

developments to offset new water demands to the greatest extent feasible. 🌍

- Policy CO-5.20 Encourage water purveyors to adopt conservation pricing strategies for existing and new development.
- Policy CO-5.21 Encourage the use of water management strategies, biological remediation, and technology to address naturally occurring water quality problems such as boron, mercury, and arsenic.
- Policy CO-5.22 Work with other agencies and non-profit organizations to provide educational and technical assistance programs to encourage farmers to adopt agricultural methods that improve water quality.
- Policy CO-5.23 Support efforts to meet applicable water quality standards for all surface and groundwater resources.

3. Implementation Program

- Action CO-A62 Collect data from public water suppliers and other water users which use groundwater sources to monitor and report groundwater levels and yields, where appropriate, to manage long term aquifer conditions. (Policy CO-5.1, Policy CO-5.3)
Responsibility: Parks and Resources Department
Timeframe: Ongoing
- Action CO-A63 Work cooperatively with water purveyors and with other land use planning agencies to share data on water supply availability, anticipated demand, land use, and population projections. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3)
Responsibility: Parks and Resources Department
Timeframe: Ongoing
- Action CO-A64 Develop a website so that water purveyors and land use planning agencies have access to adopted urban water management plans and General Plans. (Policy CO-5.1)
Responsibility: Parks and Resources Department, Planning and Public Works Department
Timeframe: 2010/2011
- Action CO-A65 Create a central database for all jurisdictions within the County of proposed, pending, and approved development activity to be used in cumulative analyses and water supply assessments. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing

- Action CO-A66 Work with water purveyors in the County to plan for possible changes to water supply and quality resulting from global warming. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3, Policy CO-5.10) 🌐
Responsibility: Parks and Resources Department
Timeframe: Ongoing
- Action CO-A67 Participate in regional planning efforts regarding surface water resources, including the Sacramento River, Cache Creek, Putah Creek, Tehama-Colusa Canal, Yolo Bypass, and Sacramento-San Joaquin Delta. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3)
Responsibility: Parks and Resources Department
Timeframe: Ongoing
- Action CO-A68 Update and implement the Integrated Regional Water Management Plan. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3)
Responsibility: Parks and Resources Department
Timeframe: 2010/2011
- Action CO-A69 Oppose proposals for surface or groundwater exports to locations outside Yolo County that do not preserve both water quality and water supply for current and planned water users, including the environment. (Policy CO-5.2, Policy CO-5.3)
Responsibility: Parks and Resources Department, County Administrator's Office
Timeframe: Ongoing
- Action CO-A70 Coordinate with local water purveyors to develop a conjunctive use program, consistent with the Integrated Regional Water Management Plan, to make the most efficient use of surface and groundwaters. (Policy CO-5.1, Policy CO-5.3) 🌐
Responsibility: Parks and Resources Department
Timeframe: 2010/2011
- Action CO-A71 Collect and maintain data on water use, water supplies, and water quality to avoid long-term overdraft, water quality degradation, land subsidence and other potential groundwater problems. (Policy CO-5.5, Policy CO-5.6)
Responsibility: Health Department, Parks and Resources Department
Timeframe: Ongoing
- Action CO-A72 Map operational and non-operational wells into the County's Geographic Information System. (Policy CO-5.3, Policy CO-5.5, Policy CO-5.6, Policy CO-5.7, Policy CO-5.8)

Responsibility: Health Department, Information Technology Department
Timeframe: 2010/2011

Action CO-A73 Work with local water purveyors to develop urban and agricultural water use efficiency programs to provide a 20 percent improvement in water use efficiency throughout the county by 2030. (Policy CO-5.1, Policy CO-5.5) 🌍

Responsibility: Parks and Resources Department
Timeframe: 2011/2012

Action CO-A74 Work with public and private water purveyors to substitute surface water sources for groundwater in areas where groundwater use is not sustainable (either for supply or quality reasons), where this can be done economically and without environmental damage. (Policy CO-5.1, Policy CO-5.3)

Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A75 Develop and implement an integrated well-head protection program. (Policy CO-5.6)

Responsibility: Agriculture Department, Health Department
Timeframe: 2009/2010

Action CO-A76 Develop a County grading ordinance. (Policy CO-5.5, Policy CO-5.6) 🌍

Responsibility: Planning and Public Works Department
Timeframe: 2009/2010

Action CO-A77 Adopt a Water Efficient Landscape Ordinance to require greater use of regionally native drought-tolerant vegetation, limitations on the amount of turf in residential development, computer controlled irrigation systems, and other measures as appropriate. (Policy CO-5.2, Policy CO-5.3, Policy CO-5.4) 🌍

Responsibility: Planning and Public Works Department
Timeframe: 2011/2012

Action CO-A78 Develop and adopt a groundwater management ordinance to address the cumulative impacts of incremental groundwater extraction. (Policy CO-5.3)

Responsibility: County Counsel
Timeframe: 2009/2010

Action CO-A79 Work with local agencies and non-profit organizations to provide educational and technical assistance to farmers to reduce sedimentation,

provide on-site retention of irrigation water and flow attenuation, as well as detention of stormwater flows. (Policy CO-5.4)
Responsibility: Agriculture Department
Timeframe: Ongoing

Action CO-A80 Coordinate with water purveyors in the unincorporated areas to inform the public about practices and programs to minimize water pollution. (Policy CO-5.4)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

Action CO-A81 Create educational programs to inform agencies, stakeholders, and the public about groundwater Best Management Practices for efficient water use, water conservation, and recharge. (Policy CO-5.4) 🌐
Responsibility: Parks and Resources Department
Timeframe: 2011/2012

Action CO-A82 Adopt an ordinance requiring that existing homes be retrofitted with water efficient appliances and fixtures prior to sale. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3, Policy CO-5.5) 🌐
Responsibility: Planning and Public Works Department
Timeframe: 2011/2012

Action CO-A83 Establish the cost of operating and maintaining potable water treatment and distribution disposal systems/facilities to ensure they are borne by those receiving benefit, through the establishment of an appropriate maintenance entity and fees. (Policy CO-5.2, Policy CO-5.3, Policy CO-5.5)
Responsibility: Planning and Public Works Department, LAFCO
Timeframe: Ongoing

Action CO-A84 Adopt an ordinance to allow for shared water systems to facilitate the clustering of homes and preservation of agricultural land, where an entity is established to provide maintenance or financing for maintenance of the water system. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3) 🌐
Responsibility: Health Department
Timeframe: 2009/2010

Action CO-A85 Adopt an ordinance to allow for roof catchment and use of rainwater for non-potable uses to reduce the need for groundwater. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3, Policy CO-5.4) 🌐
Responsibility: Parks and Resources Department, Planning and Public Works Department
Timeframe: 2010/2011

- Action CO-A86 Adopt design mandates to reduce or eliminate impervious surfaces where possible. (Policy CO-5.6)
Responsibility: Planning and Public Works Department
Timeframe: 2010/2011
- Action CO-A87 Support water purveyors in the implementation and continued refining of the “Memorandum of Understanding (MOU) Regarding Urban Water Conservation in California” in those areas where water suppliers are party to the MOU. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3)
Responsibility: Parks and Resources Department
Timeframe: Ongoing
- Action CO-A88 Implement and regularly update the County Stormwater Management Plan and associated programs. (Policy CO-5.5, Policy CO-5.6)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A89 Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from new development and increases in impervious surfaces. (Policy CO-5.5, Policy CO-5.6) 🌍
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A90 Adopt design standards that use low-impact development techniques that emulate the natural hydrologic regime and reduce the amount of runoff and associated pollutants. Examples include vegetated swales, landscaped detention basins, permeable paving, and green roofs. (Policy CO-5.5, Policy CO-5.6) 🌍
Responsibility: Planning and Public Works Department
Timeframe: 2012/2013
- Action CO-A91 Work with the Central Valley Regional Water Quality Control Board and other State and federal agencies to implement mercury total maximum daily loads (TMDLs) for Cache Creek and to develop mercury TMDLs for the Delta and other Yolo County waterways where appropriate. (Policy CO-5.6, Policy CO-5.7)
Responsibility: Parks and Resources Department
Timeframe: Ongoing
- Action CO-A92 Evaluate the creation of a countywide water authority to address water conservation, flood control, water conveyance, and water exports. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3)
Responsibility: County Administrator’s Office, County Counsel
Timeframe: 2009/2010

Action CO-A93 Continue to monitor water quality in Lower Cache Creek and annually make the resulting data publicly available. (Policy CO-5.6)
Responsibility: Parks and Resources Department
Timeframe: Ongoing

H. Air Quality

1. Background Information

a. Air Basin and Meteorology

Yolo County is located in the Sacramento Valley Air Basin (SVAB), which also includes Sacramento, Shasta, Tehama, Butte, Glenn, Colusa, Sutter, Yuba and parts of Solano and Placer Counties. The SVAB is bounded by the Coast Ranges to the west, the Cascade Range to the north and the Sierra Nevada to the east. These mountain ranges channel wind through the Valley, but also limit dispersion of pollutant emissions from the Valley.

The SVAB is characterized by hot, dry summers and cool, rainy winters, with periods of dense and persistent low-level fog interspersed with the North Pacific storm track. The average summer daily temperatures for the Sacramento Valley air basin range from 50 to more than 90 degrees Fahrenheit. The winter average temperature is approximately 50 degrees Fahrenheit with winter low temperatures occasionally dropping below freezing.

The SVAB is subject to unique wind patterns, which can affect air quality by transporting pollutants. The ozone season in the SVAB, which occurs between May and October, is characterized by still air or light winds in the morning and an evening breeze that typically transports airborne pollutants out of the air basin. However, during part of the summer, wind patterns circle airborne pollutants back into the SVAB in a phenomenon referred to as an “inversion layer.” This phenomenon worsens the pollutant emission concentrations and contributes to violations of the air quality standards.

b. Air Quality Monitoring, Emissions and Significant Source Categories

The Federal Clean Air Act (FCAA) governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA).

At the federal level, the United States Environmental Protection Agency (U.S. EPA) administers the CAA. The CCAA is administered by the California Air Resources Board (ARB) at the State level and by the various air quality management districts at the regional levels. The Yolo-Solano Air Quality Management District (District) regulates air quality locally. The District’s jurisdiction is the western portion of Lower Sacramento Valley Air Basin, comprised of Yolo County and the Northeast portion of Solano County.

The 1970 FCAA authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The FCAA Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the CAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans (SIPs) to demonstrate how they will achieve the national standards by specified dates. SIPs are not single documents, but rather are a compilation of new and previously submitted plans, programs, district rules, State regulations and federal controls. ARB reviews and approves the SIP, then provides the SIP to EPA for approval and publication. The CAA requires that projects receiving federal funds demonstrate conformity to the approved SIP and local air quality attainment plan for the region. Conformity with the SIP requirements also satisfies the CAA requirements.

In 1988, the CCAA required that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards for carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂) and nitrogen dioxide (NO₂) by the earliest practical date. The CCAA provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources (Health and Safety Code Section 40716). Each district plan is to achieve a 5 percent annual reduction, averaged over consecutive three-year periods, in district-wide emissions of each nonattainment pollutant or its precursors (Health and Safety Code Section 40914).

Based on this framework, national and State ambient air quality standards have been established for six pollutants: ozone, CO, lead, nitrogen dioxide (NO₂), particulate matter less than or equal to 10 or 2.5 microns in diameter (PM₁₀ and PM_{2.5}), and sulfur dioxide (SO₂). Ambient air quality standards are designed to protect public health and welfare with a reasonable margin of safety. Because individuals vary widely in their sensitivity to air pollutants, standards are designed to protect more sensitive populations such as children and the elderly. Generally, California Ambient Air Quality Standards are more stringent than national standards.

Areas of California not meeting federal or State air quality standards are classified as nonattainment areas. Yolo County is designated as a nonattainment area for both the State and federal ozone standards and for the State inhalable particulate matter (PM₁₀) standards.

c. Applicable State and Federal Air Quality Plans and Transportation Plans

The CCAA requires areas that have not attained State ambient air quality standards to prepare plans to attain these standards by the earliest practicable date. The District is designated as nonattainment for ozone, and accordingly, the 1992 Air Quality Attainment Plan (AQAP) was developed pursuant to CCAA requirements to provide progress toward attaining the State ozone standard. The District's Board of Directors adopted the AQAP on February 19, 1992, and it was approved by ARB on May 28, 1992.

State law does not require attainment plans for State particulate matter standards. State law does require annual and triennial progress reports regarding implementation of control measures, and triennial plan revisions to reflect and respond to changing circumstances.

The FCAA required a non-attainment plan (i.e. SIP) in 1994. The 1994 State Implementation Plan (SIP) superseded the 1992 AQAP. The SIP was deemed by ARB to fulfill the requirements for the first Triennial Progress Report to the AQAP. Additional Triennial Progress Reports were completed in 1997, 2000, and 2003.

In addition to these federal and State air quality plans, the District developed the Transportation and Land Use Toolkit in 2003, in partnership with several regional transportation agencies. The Toolkit discusses projects for alternative transportation modes that may mitigate and reduce emissions. SACOG has also created a Preferred Blueprint Scenario, approved in 2003, which outlines a vision of growth that promotes compact land use patterns which would contribute to reduced vehicular emissions.

2. Policy Framework

GOAL CO-6 Air Quality. Improve air quality to reduce the health impacts caused by harmful emissions.

- Policy CO-6.1 Improve air quality through land use planning decisions. 🌍
- Policy CO-6.2 Support local and regional air quality improvement efforts. 🌍
- Policy CO-6.3 Encourage employers to increase telecommuting, provide bicycle facilities, and enhance access to public transit for employees. 🌍
- Policy CO-6.4 Engage the public in efforts to increase awareness of the health risks associated with air pollution and to take voluntary actions that reduce emissions. 🌍
- Policy CO-6.5 Encourage community participation in air quality planning.

3. Implementation Program

- Action CO-A94 Implement the guidelines of the Transportation and Land Use Toolkit, developed by the Yolo-Solano Air Quality Management District (YSAQMD). (Policy CO-6.1, Policy CO-6.2) 🌍
 Responsibility: Planning and Public Works Department
 Timeframe: Ongoing

- Action CO-A95 Require development proposals that introduce sources of toxic air pollutants to prepare a health risk assessment and, based on the results of the assessment, establish appropriate land use buffer zones around those uses posing substantial health risks. (Policy CO-6.1) 🌐
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A96 For discretionary permits, require agricultural Best Management Practices for advantageous projects regarding odor control, stormwater drainage, and fugitive dust control where appropriate. (Policy CO-6.1) 🌐
Responsibility: Agriculture Department
Timeframe: Ongoing
- Action CO-A97 Implement the regulations and programs established by the YSAQMD to bring local air quality into attainment with State and federal standards. (Policy CO-6.1, Policy CO-6.2) 🌐
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A98 Coordinate air quality planning efforts with other local, regional and State agencies. (Policy CO-6.1, Policy CO-6.2) 🌐
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A99 Regulate the location and operation of land uses to avoid or mitigate harmful or nuisance levels of air emissions to the following sensitive receptors: residential uses, hospitals and nursing/convalescent homes, hotels and lodging, schools and day care centers, and appropriate habitat areas. (Policy CO-6.1, Policy CO-6.2)
Responsibility: Planning and Public Works Department
Timeframe: Ongoing

I. Energy Conservation

The following discussion includes goals, policies and actions relating to energy production, usage and conservation within Yolo County. Other policies relating to energy conservation, particularly associated with green building, are also located in the Land Use and Community Character Element of this General Plan.

1. Background Information

Title 24, Part 6 of the California Code of Regulations sets forth the State energy efficiency standards for residential and non-residential buildings. Title 24 requirements address a wide range of design and energy performance features of development,

including insulation; the use of energy-efficient heating, ventilation and air conditioning equipment; solar reflective roofing materials; and energy-efficient indoor and outdoor lighting systems.

Energy conservation has numerous benefits besides economic and financial savings for individual consumers. The combustion of fossil fuels to produce heat or electricity, or to power internal combustion engines, has been linked to poor air quality in the Sacramento Valley, global warming and negative impacts on crops. In Yolo County, energy conservation can be achieved via a reduction in electricity usage and private automobile use, encouraging efficient siting and exposure for buildings, and implementing land use and transportation policies that encourage fewer and shorter vehicle trips.

2. Policy Framework

GOAL CO-7	<u>Energy Conservation.</u> Promote energy efficiency and conservation.
Policy CO-7.1	Encourage conservation of natural gas, oil and electricity, and management of peak loads in existing and planned land uses. 🌍
Policy CO-7.2	Support efforts to improve energy efficiency in irrigation. 🌍
Policy CO-7.3	Require all projects to incorporate feasible energy-conserving design and construction techniques. 🌍
Policy CO-7.4	Require the use of Energy Star certified appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units, where feasible. 🌍
Policy CO-7.5	Promote criteria for all new parking lots to significantly increase shading to relieve the potential for “heat islands.” 🌍
Policy CO-7.6	Encourage the use of building materials and methods that increase energy efficiency a minimum of 15 percent beyond State Title-24 standards for residential buildings and 20 percent beyond State Title 24 standards for commercial buildings. 🌍
Policy CO-7.7	Support farmers and landowners in their efforts to maximize the efficiency of agricultural end uses. 🌍
Policy CO-7.8	Increase energy efficiency and alternative energy utilization in existing buildings where feasible. 🌍
Policy CO-7.9	Require that new site and structure designs maximize energy efficiency. 🌍

Policy CO-7.10 Encourage residents to retrofit existing residences to maximize energy efficiency. 🌍

3. Implementation Program

Action CO-A100 Amend the Zoning Code to streamline permitting for the production of biofuels, biomass, and other energy alternatives to reduce dependency on fossil fuels. (Policy CO-7.1) 🌍

Responsibility: Planning and Public Works Department

Timeframe: 2010/2011

Action CO-A101 Require the use of Energy Star certified appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units, in all new subdivisions. (Policy CO-7.1, Policy CO-7.4) 🌍

Responsibility: Planning and Public Works Department

Timeframe: Ongoing

Action CO-A102 Continue to provide incentives for the installation of solar energy and other alternate conservation measures in all development approvals. (Policy CO-7.1, Policy CO-7.3, Policy CO-7.8) 🌍

Responsibility: Planning and Public Works Department

Timeframe: Ongoing

Action CO-A103 Amend the Zoning Code to include regulations for all new parking lots to include tree plantings that will result in 50 percent shading of parking lot surface areas within 10 years. (Policy CO-7.1, Policy CO-7.5) 🌍

Responsibility: Planning and Public Works Department

Timeframe: 2010/2011

Action CO-A104 Use Development Agreements and/or adopt an ordinance to require the use of building materials and methods that increase energy efficiency a minimum of 20 percent beyond State Title-24 standards, where feasible. (Policy CO-7.6) 🌍

Responsibility: Planning and Public Works Department, County Counsel

Timeframe: Ongoing

J. Climate Change

A summary of the issue of climate change is provided in this subsection, however climate change policies also occur in every element of this General Plan and are denoted by the symbol “🌍”.

1. Background Information

A balance of naturally occurring greenhouse gases (GHGs) in the earth's atmosphere is responsible for maintaining a habitable climate. Emissions from human activities, such as electrical production, motor vehicle use, and some forms of agriculture are elevating the concentrations of greenhouse gases in the atmosphere, and have led to increasing instability in the earth's climate. This is known as climate change. Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃), and water vapor (H₂O) are the primary GHGs. When concentrations of these gases exceed natural concentrations in the atmosphere, the greenhouse effect is enhanced and global warming occurs.

California's major initiatives for reducing climate change or GHG emissions are outlined in Assembly Bill 32 (signed into law 2006), 2005 Executive Order and a 2004 California Air Resources Board (CARB) regulation to reduce passenger car GHG emissions. These efforts aim at reducing GHG emissions to 1990 levels by 2020 – a reduction of about 25 percent, and then an 80 percent reduction below 1990 levels by 2050. The CARB is tasked with implementation of these directives.

How California communities are designed and built has large consequences on the State's GHG emission levels, and as a result, has an impact on global climate change. The majority of the State's greenhouse gas (GHG) emissions are the result of infrastructure and development decisions: how we build our buildings, where we put them, and the quality and types of infrastructure that are required to serve them. This General Plan addresses those issues for unincorporated Yolo County.

This General Plan establishes the land use pattern that will accommodate the residents, businesses, and attendant infrastructure planned through 2030 in Yolo County. Decisions about the location of commercial, residential and civic buildings, roads and transit systems, water supply, building design, natural resources, open space, agriculture, and energy infrastructure determine the level of GHG emissions in the County. Thus, through the implementation of this General Plan it is possible to minimize increases in local GHG emissions. Local decisions regarding agricultural land preservation, transportation, air quality, water supply, economic development, environmental protection, and affordable housing need to be coordinated and balanced to achieve the County's multiple policy objectives and still minimize GHG emissions.

Motor vehicle use creates a significant proportion of GHG emissions. There are three interrelated components that can contribute to transportation sector emission reductions: 1) vehicle technology, 2) fuels, and 3) vehicle use. Local government has the ability to affect only one area – vehicle use. Vehicle use is affected by providing transportation alternatives and by managing the demand for transportation.

Transportation demand management (TDM) and alternative mobility options, including walking, biking, and transit, require coordinated land use decisions and measures that maximize the efficient use of existing transportation systems and provide for the

increased availability and use of efficient transit, as well as walking and biking infrastructure to increase mobility, improve health, and provide other economic and environmental benefits. The effectiveness of efforts to provide transportation alternatives to the automobile and to implement TDM policies and strategies can be measured in terms of reductions in vehicle miles traveled (VMT) or expected growth in VMT. VMT reductions (and speed stability) correlate directly with reductions in GHG emissions.

Land use patterns also have a direct relationship to GHG emissions. Studies have shown that the following land use characteristics lead to significantly higher average vehicle ownership, daily VMT per capita, annual traffic fatality rate, and maximum ozone level days.

- Population dispersed in low density residential development.
- A lack of mixed uses (homes, shops, and workplaces).
- A lack of distinct, thriving activity centers, such as strong downtowns or town centers.
- A network of roads marked by very large block size and poor access from one place to another.

Research of the many factors that can be used to analyze the relationship between development and transportation implies that density may have the most significant relationship to travel and transportation outcomes. Controlling for other factors, the difference between the length and amount of trips, low density U.S. metropolitan areas have over 40 percent more daily VMT per capita than high density areas. In general, a doubling of neighborhood density can be expected to result in approximately a 5 percent reduction in both the number of vehicle trips and their length.

Overall VMT and vehicle trips per household decline as accessibility, density, and land-use mixing increase, which have historically been tenets of land use planning in Yolo County, as in this General Plan.

Yolo County has undertaken several actions to date to reduce greenhouse gases as related to County operations and programs:

- **Cool Counties.** Yolo County has committed to the Cool Counties Climate Stabilization Declaration, a pledge to reduce greenhouse gas emissions from County operations by 80 percent by 2050.
- **UC Davis Partnership.** The County has engaged civil and environmental engineering students to assist in studying its carbon generation from county operations, and develop policies and strategies to reduce emissions.
- **Increasing Energy Efficiency.** The County has taken steps to increase the energy efficiency of county operations including replacement of incandescent lights with compact fluorescent bulbs, retrofit of infrastructure in County buildings, installation of

computerized climate control in all major county buildings, installation of cogeneration capacity at the Monroe Detention Facility, development of a building closure program to retire less energy-efficient buildings, and a countywide appliance replacement program for Energy Star appliances.

- **Full-Scale Landfill Bioreactor.** The County recovers methane gas, a potent greenhouse gas, from the Central Landfill to generate electricity.
- **LEED.** The County has adopted Leadership in Energy and Environmental Design (LEED) standards for new county buildings.
- **Recycling.** All County buildings recycle paper, cardboard, cans, bottles, fluorescent tubes, oil, computers, rigid plastics, agricultural plastics, PVC pipe, toner cartridges, cell phones, batteries, and electronic waste.
- **Agricultural Marketing.** The Agriculture Commissioner has initiated an agricultural marketing program to reduce “food miles,” and therefore result in reductions in carbon dioxide emissions.
- **Transportation and Fleet Vehicles.** The County has installed charging stations for electric vehicles and uses electric vehicles for commuting between local facilities.

The County also requires energy efficient project design and landscaping design as a part of the development review process. Additionally, the Cache Creek Area Plan establishes monetary and regulatory incentives to encourage recycling of aggregate products.

2. Policy Framework

GOAL CO-8 Climate Change. Limit greenhouse gas emissions and plan for adaptation to the future consequences of global climate change.

- Policy CO-8.1 Assess current greenhouse gas emission levels and adopt long-term strategies based on scientific analysis to reduce global climate change impacts. 🌍
- Policy CO-8.2 Use the development review process to achieve measurable reductions in greenhouse gas emissions. 🌍
- Policy CO-8.3 Prepare appropriate strategies to adapt to climate change based on sound scientific understanding of the potential impacts. 🌍
- Policy CO-8.4 Encourage all businesses to take the following actions, where feasible: replace high mileage fleet vehicles with hybrid and/or alternative fuel vehicles; increase the energy efficiency of facilities; transition toward the use of renewable energy instead of non-renewable energy sources; adopt purchasing practices that promote emissions reductions and reusable materials; and increase recycling. 🌍

- Policy CO-8.5 Promote GHG emission reductions by supporting carbon efficient farming methods (e.g. methane capture systems, no-till farming, crop rotation, cover cropping, residue farming); installation of renewable energy technologies; protection of grasslands, open space, and farmlands from conversion to other uses; and development of energy-efficient structures. 🌍
- Policy CO-8.6 Undertake an integrated and comprehensive approach to planning for climate change by collaborating with international, national, State and regional organizations. 🌍
- Policy CO-8.7 Integrate climate change planning and program implementation into County decision making. 🌍
- Policy CO-8.8 Increase public awareness about climate change and encourage county residents and businesses to become involved in activities and lifestyle changes that will aid in reduction of greenhouse gas emissions. 🌍

3. Implementation Program

- Action CO-A105 Develop a Greenhouse Gas (GHG) Emissions Reduction Plan and/or climate action plan for the County, to address climate change and GHG reduction, including the following steps: 1) conduct a baseline analysis (GHG emissions inventory) for 1990 and 2005; 2) adopt an emissions reduction target; 3) develop a plan for reducing emissions including direct offsets and fees to purchase offsets; 4) implement strategies and actions; and 5) monitor emissions and verify results every five years starting in 2010. Utilize the 1982 Energy Plan as a starting point for this effort. (Policy CO-8.1) 🌍
Responsibility: County Administrator's Office
Timeframe: 2012/2013
- Action CO-A106 Monitor State progress in the development of GHG quantification protocol and guidance for local governments that allows for statewide uniform measurement and estimation of expected jurisdiction-wide GHG emissions. (Policy CO-8.1) 🌍
Responsibility: Planning and Public Works Department
Timeframe: Ongoing
- Action CO-A107 Require the implementation of cost-effective and innovative emission reduction technologies in building components and design. (Policy CO-8.2, Policy CO-8.4) 🌍
Responsibility: Planning and Public Works Department, General Services Department

Timeframe: Ongoing

Action CO-A108 Adopt urban forestry practices that encourage forestation as a means of storing carbon dioxide, with the goal of doubling the tree canopy in unincorporated communities by 2030. (Policy CO-8.1) 🌍
Responsibility: Planning and Public Works Department, Parks and Resources Department
Timeframe: 2012/2013

Action CO-A109 Require new development to incorporate designs and/or programs to reduce travel demand and vehicle emissions. (Policy CO-8.2, Policy CO-8.4) 🌍
Responsibility: Planning and Public Works Department
Timeframe: Ongoing

Action CO-A110 Require that new development incorporate alternative modes of transportation, including transit, bicycling and walking, in order to reduce vehicle emissions. (Policy CO-8.2, Policy CO-8.4) 🌍
Responsibility: Planning and Public Works Department
Timeframe: Ongoing

K. Delta Region

The following discussion includes goals, policies and actions relating to the County's interests in the Delta region. Other policies relating to the Delta are also located in each of the other elements of this General Plan.

1. Background Information

In the past two years, the Delta has become an area of intense interest, with numerous planning and legislative efforts looking to redefine the policy and regulatory landscape. This General Plan will incorporate the timely results of these various state processes, where appropriate, once they are adopted. Other processes may be the subject of future Amendments to bring the General Plan into conformance with new laws and/or regulations.

Those areas of the Yolo Bypass, the City of West Sacramento, and the unincorporated area that lie south of Interstate 80 are located within the Primary and Secondary Zones of the Sacramento-San Joaquin Delta. Land use in these areas must not only be consistent with this General Plan, they must also be consistent with the Land Use and Resource Management Plan (LURMP), as adopted by the Delta Protection Commission (DPC). The DPC is currently in the process of updating the LURMP, to address a wide range of issues, including recent court decisions related to water export, studies that indicate serious problems with the health of the Delta ecosystem, concerns about the ability of levees to withstand significant flood and/or seismic events, and the effects of fu-

ture global climate change. This review may include areas outside of the Delta as currently defined. The updated Draft LURMP is expected to be released in 2009.

Similarly, in 2006, the Governor issued an Executive Order creating the Delta Vision process. The Delta Vision Blue Ribbon Task Force (DVBRTF) is a group of public officials, experts, and stakeholders, charged with developing recommendations on the overall management and governance of the Delta, including goals related to improving safety, ensuring water supply and water quality, expanding recreation, coordinating emergency response, and protecting infrastructure and public safety. The DVBRTF is currently conducting their strategic planning process, which is expected to be completed by early 2009.

The Bay Delta Conservation Plan (BDCP) is a collaborative effort between Federal and State agencies, water districts, environmental organizations, and the California Farm Bureau to help recover endangered/sensitive species and their habitats in the Delta, while ensuring sufficient and reliable water supplies for Central and Southern California. Primary among their recommendations is the construction of a new facility to convey water from the North Delta to the South Delta. There are two potential alignments for an alternative conveyance: one going through Sacramento County and one through Yolo and Solano Counties. Extensive habitat restoration to mitigate for the plan is also under consideration, including the lower Yolo Bypass and the Clarksburg region. The BDCP is expected to be completed by 2010.

The Central Valley Regional Water Quality Control Board (CVRWQCB) is in the process of developing Total Maximum Daily Loads (TMDLs) for mercury. Both refined and elemental mercury are contaminants in the Delta, the result of natural deposits and the ongoing effects of gold mining in the 18th century. Mercury becomes more concentrated as it is carried up the food chain, adversely affecting development in the young. It is of particular concern to the health of fish species and people who consume large amounts of Delta fish. The TMDLs will strictly regulate the amounts of mercury that can be discharged into the Delta and its tributaries.

The Lower Bypass Planning Forum provides a stakeholder process to assess a broad range of issues concerning the southerly portion of the Yolo Bypass. A State-funded planning process, it includes participation by the DPC, Yolo Basin Foundation, Metropolitan Water District, and Westlands Water District.

2. Policy Framework

GOAL CO-9 **Delta Governance. Participate in State and regional efforts to establish governance, policy, and regulations for the Delta, to ensure the consideration of Yolo County's interests.**

Policy CO-9.1 Advocate to establish funding mechanisms independent of the State budget for payment to the County of in-lieu property taxes and other

fees on land acquired in the Delta for habitat restoration and water conveyance.

- Policy CO-9.2 Ensure that the acquisition of new municipal water for the City of Davis, City of Woodland, and UC Davis from the Sacramento River is not precluded.
- Policy CO-9.3 Pursue the establishment of dedicated State and federal funding sources to remediate mercury, in the various sources located in the upper Cache Creek watershed, in the sediments and waterways of both Cache Creek (including the Settling Basin) and the Yolo Bypass, and where it methylizes in the Delta.
- Policy CO-9.4 Ensure that the design and construction of habitat restoration projects within riparian areas do not result in increased levels of mercury bi-methylization within the Yolo Bypass and Delta are not increased.
- Policy CO-9.5 Encourage funding to maintain and strengthen flood capacity along the Sacramento River and Yolo Bypass, including support from beneficiaries of the State and Central Valley Water Projects, which have changed flow regimes to the detriment of levee integrity.
- Policy CO-9.6 Support efforts to provide a minimum 100-year flood protection for the community of Clarksburg.
- Policy CO-9.7 Protect water quality in the Sacramento River, its tributaries, and groundwater aquifers from excess salinity due to decreased fresh water inflow from Delta projects.
- Policy CO-9.8 Work to implement high priority projects in Yolo County's Integrated Regional Water Management Plan, especially related to flood management on Cache Creek.
- Policy CO-9.9 Ensure existing and future operations of the Port of Sacramento as an industrial and transport hub for the region, including protection and improvement of the levees along the deep water ship channel, as well as deepening the ship channel.
- Policy CO-9.10 Support improvements necessary to ensure the continued transportation of agricultural products along State Route 84 for the Clarksburg region.
- Policy CO-9.11 Ensure that proposed changes to the operation of the Sacramento Weir fully mitigate any potential adverse impacts to Old River Road (County Road 22).

- Policy CO-9.12 Work to ensure that changes to the operation of the Yolo Bypass, including the Fremont Weir, toe drain, and/or increased frequency of intentional flooding do not adversely affect Yolo County interests. These may include: the economic viability of agriculture within the Bypass, the feasibility of planned development for the Elkhorn Specific Plan, the use of County Road 22 as an alternative route during closures of Interstate 5, and the continued operation of Interstates 5 and 80, and the Union Pacific Railroad across the Bypass.
- Policy CO-9.13 Encourage funding for the construction and operation of the Pacific Flyway Center at a site located next to the Yolo Bypass.
- Policy CO-9.14 Establish Clarksburg as a gateway entry for visitors to the Delta region seeking agricultural tourism, ecotourism, and recreational opportunities.
- Policy CO-9.15 Seek legislation to clarify that property within the Clarksburg growth boundary is in the Secondary Zone of the Delta.
- Policy CO-9.16 Pursue funding to assist non-governmental organizations acquire agricultural conservation easements within Yolo County, where appropriate.
- Policy CO-9.17 Pursue funding to assist non-governmental organizations acquire habitat conservation easements within Yolo County, where appropriate.
- Policy CO-9.18 Support the establishment of a Delta Conservancy to provide funding and work with federal, State and local governments, local Habitat Conservation Programs, nonprofit organizations, and landowners on improvements to Delta management.
- Policy CO-9.19 Vigorously protect all water rights related to lands within Yolo County, including areas of origin, riparian water rights, and other existing water rights.
- Policy CO-9.20 Work to ensure recognition by the Central Valley Regional Water Quality Control Board (CVRWQCB) of the economic, habitat, water resources, and flood management impacts associated with developing Total Maximum Daily Loads (TMDLs) for mercury within the Delta.
- Policy CO-9.21 Recognize the special character of “heritage” or “legacy” communities in the Delta (such as Clarksburg) and promote their economic vitality.
- Policy CO-9.22 Seek to ensure that future changes to the boundaries of the Delta, including the boundaries of the Primary and Secondary Zones, are consistent with the goals and policies of this General Plan.

Policy CO-9.23 Work to ensure that State and federal habitat restoration efforts recognize and support the Yolo Natural Heritage Program.

Policy CO-9.24 Pursue policy and legislative strategies to ensure that the Clarksburg Agricultural District can be fully implemented within the Delta Protection Commission Land Use and Resource Management Plan, Delta Vision, Bay-Delta Conservation Plan, and other regional efforts.

3. Implementation Program

Action CO-A111 Pursue recognition and compensation from the State and other appropriate entities, public or private, for the economic effects of changes to the management and governance of the Delta on Yolo County. (Policy CO-9.1, Policy CO-9.3, Policy CO-9.20, Policy CO-9.21)
Responsibility: County Administrator's Office, Parks and Resources Department
Timeframe: Ongoing

Action CO-A112 Actively participate in State and regional efforts to establish land use policy, regulation, and governance for the Delta to ensure the consideration of Yolo County's interests. (Policy LU-4.2, Policy CO-20, Policy CO-9.21)
Responsibility: Planning and Public Works Department, County Administrator's Office, Parks and Resources Department
Timeframe: Ongoing