The background is a soft, painterly illustration of a rural landscape. It features rolling hills in shades of purple, blue, and green, with patches of yellow and orange. In the foreground, there is a field of tall, golden-brown grasses, and a rustic wooden fence with several posts runs across the lower portion of the scene. The overall style is impressionistic and serene.

*Welcome*

TO THE

WATERSHED!

DIRECTORY AND GUIDE FOR  
YOLO COUNTY RESIDENTS

Yolo County Resource Conservation District



## ABOUT THIS DOCUMENT

This directory and guide draws on the amazing work of various watershed groups throughout the country. The goal of this project is to introduce Yolo County residents to the efforts and accomplishments of these groups. We hope that this document provides a guide to County resources and issues and inspires residents to take conservation into their own hands. The document serves as a directory of contact information for local organizations so that landowners may leverage their efforts with others.

This Directory was built on the work of Kathleen Robins, project coordinator of the 'Welcome to the Watershed' program for the Solano County Resource Conservation District. The Solano publication received major funding from the Solano County Water Agency, and was researched and written with funding from the Department of Conservation's Watershed Coordinator Program. In addition, this guide builds on the work of other organizations, including the Resource Conservation District of the Santa Monica Mountains, Napa County Resource Conservation District, Resource Conservation District of Santa Cruz County, Santa Clara Valley Water District, Bay Area Pollution Prevention Group, Winiger Ridge Stewardship across Boundaries, and Solano County Flood Control Committee.

This version of Welcome to the Watershed has been tailored for Yolo County. Yolo County Resource Conservation District (Yolo RCD) staff including Daniel Elseaff, Jeanette Wrynski, Heather Nichols-Crowell, Diane Crumley, Tanya Meyer, Mark Lane, Chris Robbins, Susan McCloud, Sheila Pratt and Paul Robins all contributed greatly to this document. In addition, most of the partners listed in the Directory also provided information and editing. We wish to acknowledge the good work that continues in Yolo County and hope that this guide inspires continued good stewardship of local resources!

*Plein air painting on front and back cover: "Evening Shadows" by local artist Marie-Therese Brown.*

**[Yolo RCD] Yolo County Resource Conservation District. 2010. Welcome to the Watershed. Woodland, California.**

*Please note that the Welcome to the Watershed Project or its partners do not endorse the organizations or businesses listed in this directory and accept no responsibility for the performance of the organizations and businesses listed and make no representation, either expressed or implied, regarding their competence or expertise. The information is provided only for your convenience.*

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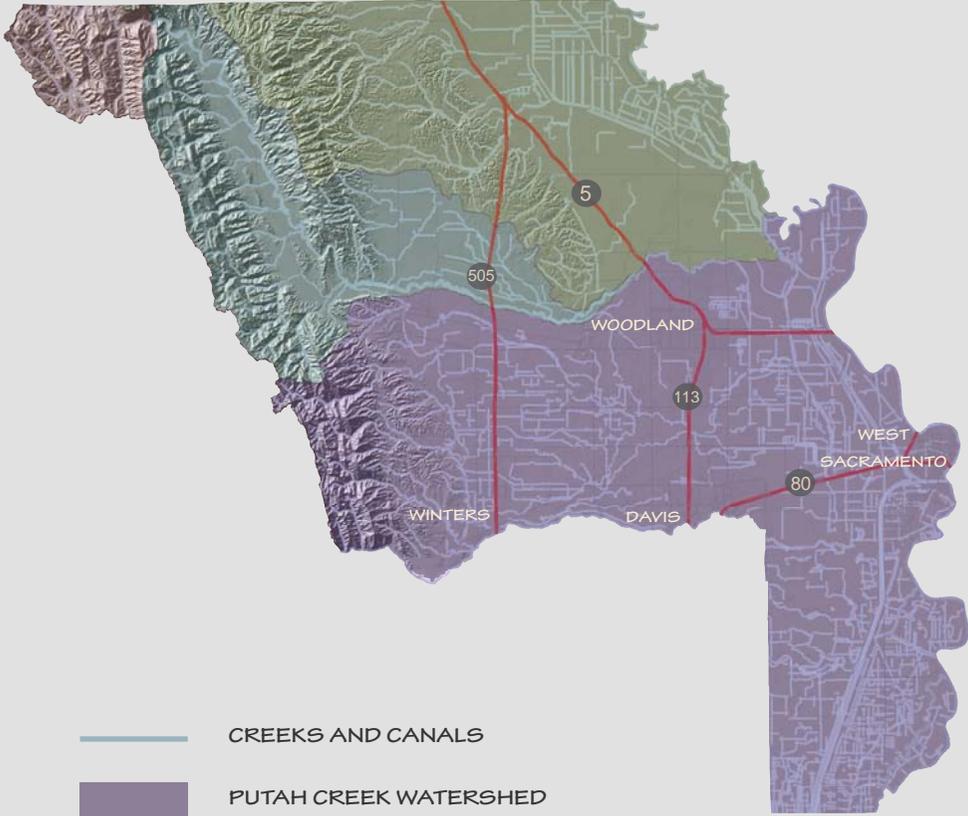
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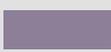
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# The Watershed, an Overview

## YOLO COUNTY WATERSHEDS



-  CREEKS AND CANALS
-  PUTAH CREEK WATERSHED
-  LOWER CACHE CREEK WATERHSED
-  COLUSA BASIN WATERSHED
-  UPPER CACHE CREEK WATERSHED

# WELCOME TO THE WATERSHED!

## A DIRECTORY AND GUIDE FOR YOLO COUNTY RESIDENTS



Every resident is a watershed steward. The choices they make – in maintaining their homes and cars, in how they garden and landscape, in how they get around – impact both the land they live and work on and can have impacts on the watershed and county. Yolo County covers 1,013 square miles within the Sacramento River Watershed, and within that area, several smaller watersheds dot the landscape. The landscape includes the majestic Blue Ridge of the coast range, the distinctive Dunning Hills, beautiful canyons, a network of seasonal creeks, flat fertile farmland, hilly rangeland, rare prairie lands, and the mighty Sacramento River and the San Francisco Bay Delta. We enjoy cooling Delta breezes, easy access to San Francisco and Sacramento and the beauty of a landscape rich in natural and cultural heritage.

This Directory provides residents with useful information about the many natural resources found in Yolo County, along with great tips and information about taking care of and improving your piece of the watershed. Landowners that manage their property in ecologically sustainable ways will in turn help protect and preserve Yolo County's resources. We hope that this directory provides a good start on finding that information. We welcome feedback on this document, so feel free to let us know how it can be improved in the future.

Welcome to the watershed, and enjoy!

### WHAT IS A WATERSHED ?

A watershed describes the area of land where water that drains off of it goes into the same place. Imagine a raindrop that might fall on your yard, where will that water go? Will it feed a creek, river, pond, or by-pass? Where does groundwater flow in your area? The watershed concept helps us understand what problems landowners might share in an area and what solutions might work. Landowners within a watershed often share similar challenges. Watersheds fit together like puzzle pieces and knowing what is going on next door also may help understand issues in context. Understanding watersheds helps us understand water supply, the fate of nutrients and pollutants, soil erosion and deposition, crop options, wildlife habitat, urban development patterns, air quality, and many other important conservation issues.

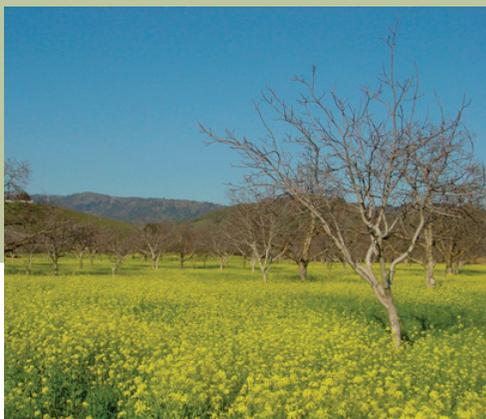


# Watershed Resources for Landowners

**W**atersheds are made up of all the plants, animals and geologic formations of the natural world, as well as all the housing, agriculture and industry of the developed world. We spend our day-to-day lives working and playing in the watersheds we call home. We rely on water and other natural resources for our most basic needs and our most expansive creations.

The health of our watersheds and our lives are linked. Healthy watersheds mean a healthy environment, people, and a local economy. To understand the watershed you live in is to understand the way water flows across the land, how much water is likely to drain across your land during flood season, and what might be in that water. Each watershed has specific resource issues that can impact your life. Many of those issues tie directly to water, including flood risk, water quality, fire danger, and land stability.

Take a look at the map in the front of this Directory to determine what watershed you live in. What resource issues are important to you? To your neighbors? What are the underlying causes of those issues? What activities do you do that might impact others in the watershed? Some of these answers are complex and we are uncovering new connections all the time. Some of the references in this document can help investigate those answers or provide solutions. This Directory is intended to help guide landowners to the right organization for help and provide contact information. Please browse through it and feel free to contact the organizations that may be able to help.



UC Davis

## THE LAND WE LIVE ON

**Y**olo County straddles the rich agricultural region of California's Central Valley and the Sacramento River Delta. The eastern two-thirds of the county consists of nearly level alluvial fans, flat plains and basins. Intensive irrigated agriculture dominates this area. The western third of the county consists of rolling terraces and steep uplands and is used mostly as rangeland. The elevation ranges from slightly below sea level near the Sacramento River around Clarksburg to 3,000 feet along the ridges of the mountainous west. Putah Creek descends from Lake Berryessa offering fishing and camping opportunities. Cache Creek, flows from Clear Lake, offering class II-III rapids for white water rafting and kayaking as it passes through the Capay Valley. As a stop on the Pacific flyway, a major migration route for waterfowl and other North American birds, Yolo County hosts several wildlife preserves. For example, the Yolo Bypass Wildlife Area, recognized as one of the most successful public-private partnerships for wildlife preservation, provides habitat for resident and migratory waterfowl on more than 2,500 acres of seasonal and semi-permanent wetlands. However, the County supports a variety of ecological habitats in a matrix of rural uses. Over 88% of Yolo County's population of 199,066 residents resides in the four incorporated cities of Davis, West Sacramento, Winters, and Woodland.

## SOILS

Soil characteristics often dictate the uses of a property. Soil scientists will group soils into soil series that describe the proportion of sand, silt, and clay and other characteristics, and this information is compiled into a soil survey of a particular location. A wealth of information can be

obtained from the soil survey of Yolo County. For example, capability classifications describe the suitability of a soil for growing field crops, and range from Class I to Class VIII. Class I soils have few restrictions that limit their use and can be used for a variety of agricultural uses. Class VIII soils have many limitations that limit their use to wildlife habitat, water supply, or recreation. An



Photo by Jodie Salz

understanding of soils is critical to understanding and managing watersheds, wildlife habitat areas, recreational facilities, community developments and engineering projects. Fortunately, there are good resources available for landowners from the Natural Resource Conservation Service (NRCS, formerly the Soil Conservation Service) in Woodland and online.

## WATERSHED CHALLENGES

Each watershed has its own issues. To fully understand these issues often requires a watershed assessment to identify the underlying

factors that may suggest solutions. A watershed assessment is a process for identifying issues, examining the history of the watershed, describing its features, and evaluating various resources within the watershed. Solutions can then be listed in a specific context. And yet in Yolo County, there are a lot of shared issues and patterns that apply across the landscape. Flooding and flood management are important issues along creeks, rivers, and low lying areas, especially in the eastern edge of the County. Erosion and sedimentation are concerns whenever water flows, especially on the more steeply sloped areas of the western side of the County. Water conservation and quality (nutrients, sediment, and pollutants) issues will continue to be a concern throughout Yolo, as well as invasive species concerns. Although Yolo has been relatively protective of agricultural land, over time, the conversion of prime ag land to other uses will remain a concern along transportation corridors and near urban areas. This document provides landowners with some background information on these and other issues and helps direct landowners to organizations and information for better natural resource conservation.

## LAND AND LAND USE RESOURCES

Yolo County General Plan

[yolocountygeneralplan.org](http://yolocountygeneralplan.org)

Natural Resource Conservation Service

[www.ca.nrcs.usda.gov](http://www.ca.nrcs.usda.gov)

Soil Survey of Yolo County

[www.ca.nrcs.usda.gov/mira02/yolo.html](http://www.ca.nrcs.usda.gov/mira02/yolo.html)

Yolo Land Trust

[yololandtrust.org](http://yololandtrust.org)



Photo by Jodie Salz

# WATER IN YOLO COUNTY

## WHERE OUR WATER COMES FROM

Most residential water is pumped from underground aquifers but also from the Sacramento River. Agricultural water comes from a combination of ground and surface water, delivered by multiple water districts, the largest of these include the Yolo County Flood Control and Water Conservation District (YCFCWCD), Reclamation Districts (108, 999, etc.) and the Dunnigan Water District. All but the YCFCWCD pull their water from the Sacramento River. YCFCWCD maintains dams in the upper Cache Creek watershed and diverts water from Cache Creek once it reaches the valley floor. If you live in the rural lands between Davis, Winters and Woodland, chances are you have a YCFCWCD canal running near or servicing your property.



Photo by Craig Thomsen

Currently, Yolo County water resources are generally adequate for our existing population and uses. However, ground water users using private wells are struggling with adequate and reliable water supplies, and as the population continues to grow, water will become a bigger issue. Citizens and local governments in all the county's watersheds will likely need to consider the availability and cost of water as they approve new development or land use changes.

## WHERE OUR WATER GOES

The water used outside – for irrigation, car washing, agriculture, etc.- either is absorbed into the soil or runs off, moving along the natural and man-made drainages to the Yolo Bypass or the Sacramento River. The path used tap water takes through the watershed varies depending on where you live. Those who are linked to a municipal water system discharge used water into that system, where it is treated at a wastewater treatment plant and then released back into a canal or creek to make its way to the river or bypass. Rural residents discharge used water into septic tanks, where the system's enzymes break down solid wastes and toxins and the remaining water eventually leaches down into ground water.

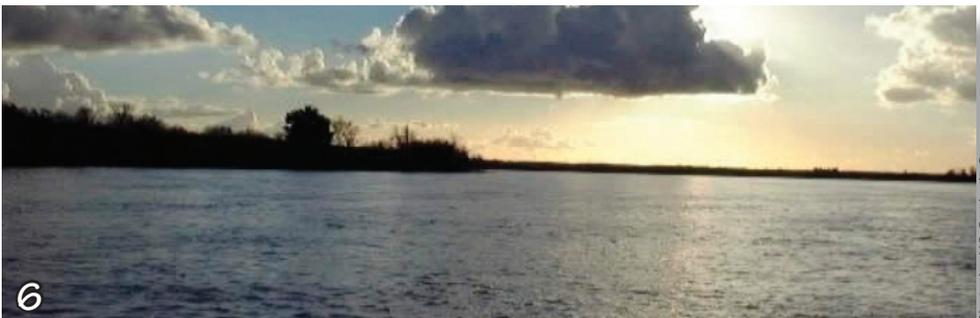


Photo by US Geologic Survey

## KEEPING OUR STREAMS AND DRINKING WATER CLEAN & SAFE

Good water quality is essential to healthy ecosystems, agriculture, and communities. Multiple agencies in Yolo County have regulatory responsibility for maintaining water quality, including the County of Yolo, Sewer Districts, and each of the County's cities and towns.

As water from rainfall and irrigation flows over the landscape, it picks up and carries contaminants from many different sources. This is called Non-Point Source pollution, which is the term regulators use for polluted runoff from disparate sources as opposed to single 'point' sources such as treatment plants and factories. This polluted water can eventually end up in streams, lakes, the ocean, and into underground water sources. Polluted water is expensive to treat and poses risks to human health and the environment. County-wide efforts to address water and water quality include the Yolo County Integrated Regional Water Management Plan (IRWMP) and the Yolo County Farm Bureau Education Corporation (YCFBEC) Irrigated Lands Program.

Here are some things you can do to prevent non-point source pollution and improve water quality:

- Reduce the amount of water, fertilizers, and pesticides you use. Excess water can carry contaminants directly to our creeks and into the Sacramento River and Delta system.
- Wash your car at a commercial car wash where the dirty water is treated by the sewer district, or on a permeable surface such as a lawn to keep detergents and trash from entering the storm drain system.
- Fit your roof with gutters and downspouts that discharge onto a permeable surface (such as grass or a sand-pit), or collect rainwater in a cistern or tank for fire protection and irrigation.
- Dispose of all products properly. Street trash, used oil and hazardous materials often find their way into the storm drain system.
- Cover outdoor trash receptacles.
- Contact the Yolo County Public Works Department (530-666-8775) to report illegal dumping or overflowing sewage.

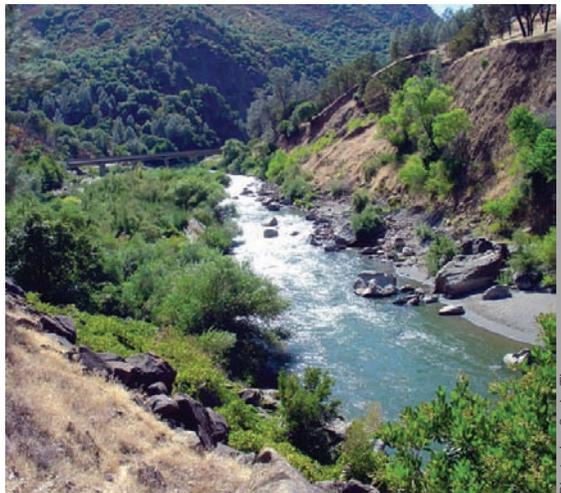


Photo by Craig Thomsen



Photo by Tanya Meyer



### WATER RESOURCES

Yolo County Flood Control & Water Conservation District  
(530) 662-0265  
[ycfcwcd.org](http://ycfcwcd.org)

City Water Departments  
Davis: (530) 757-5686  
West Sacramento: (916) 617-4850  
Winters: (530) 795-4910  
Woodland: (530) 661-5962

Woodland Waste Water Treatment  
(530) 661-5962

Yolo County Farm Bureau  
(530) 662-6316  
[yolofarmbureau.org](http://yolofarmbureau.org)

Yolo County Integrated Regional Water Management Plan  
*Yolo County Water Resources Association*  
[yolowra.org/irwmp.html](http://yolowra.org/irwmp.html)



### MORE WATER INFORMATION

California Ocean and Environmental Network  
[ceres.ca.gov/ocean/geo\\_area/counties/skel/rivers.phtml?Yolo](http://ceres.ca.gov/ocean/geo_area/counties/skel/rivers.phtml?Yolo)

# YOLO COUNTY FARM BUREAU EDUCATION CORPORATION (YCFBEC) IRRIGATED LANDS PROGRAM

The Central Valley Regional Water Quality Control Board (Regional Board) of the California State Water Resources Control Board (SWRCB) requires all irrigated agricultural lands to have a permit for waste waters running off their land.

This requirement can be met in two ways:

### Getting an Individual Permit from the Regional Board.

This requires the permit holder to write a plan, perform water quality monitoring tests, hire someone to write a report of the results. This can be time-consuming and expensive for an individual.

### Join a Coalition to manage the program and share expenses with other landowners.

Yolo County Farm Bureau formed the YCFBEC sub-watershed that landowners can voluntarily join. The YCFBEC is one of 11 sub-watersheds in the Sacramento Valley Water Quality Coalition, managed by Northern California Water Association (NCWA) in Sacramento. The Coalition has developed a program which coordinates water quality monitoring and works to report results to the Regional Board to meet the requirements of the Irrigated Lands Program.



Photo by Yolo RCD

## WHO'S INVOLVED?

- All landowners who produce an agricultural product for sale on irrigated lands. This includes farming operations and rural residential properties with irrigated pastures and orchards.
- The Yolo County Resource Conservation District provides technical assistance for appropriate best management practices and in-field water quality management support.
- The Yolo County Department of Agriculture provides critical technical support to the coalition group.

## LANDOWNER RESPONSIBILITIES:

All landowners with irrigated lands are required to have a permit and enroll in the Irrigated Lands Program. The Regional Board is vigorously working to find landowners who have not enrolled.

For more about compliance, landowners may:

- Call the Regional Board at (916) 464-4645
- Go online and complete the forms at: [waterboards.ca.gov/centralvalley/water\\_issues/irrigated\\_lands/](http://waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/)
- Call the Yolo County Farm Bureau office at (530) 662-6316 for help with the paperwork and answer questions.

### YOLO COUNTY FARM BUREAU EDUCATION CORPORATION

69 West Kentucky Avenue  
Woodland, CA 95695  
Phone: (530) 662-6316  
Fax: (530) 662-8611  
[info@yolofarmbureau.org](mailto:info@yolofarmbureau.org)



## AIR QUALITY

Watershed health, air quality, and energy are all related. While electricity generation is the single greatest source of air pollution in the United States, contributing to smog, acid rain and global warming, mobile sources create the majority of air pollution for our region. Luckily, we have some personal control over the production of energy and our own air quality. By using public transportation, planting trees, buying alternatively fueled vehicles or switching to “green” energy, we can all contribute to significant, positive changes in air quality.

## THE AIR INSIDE

Many of us spend most of each day inside a building. The quality of the indoor air we breathe during that time has a big impact on our health and well-being. Mold, off-gassing of paint, furniture and carpeting, and pet allergens can all affect the quality of the air we breathe inside a building. More information about managing these pollution sources can be found at the following resources:

- The US Environmental Protection Agency Region 9 office at (415) 947-4189 has information about potential sources of indoor air pollution and ways to prevent poor indoor air quality. You can also find a wealth of information at US EPA’s indoor Air Quality web site at [epa.gov/iaq/](http://epa.gov/iaq/).
- The American Lung Association in Sacramento at (916) 554-5864, in California at (510) 638-5864, or [lungusa.org](http://lungusa.org) offers information about indoor air quality in the home and workplace. You may also contact Breathe California at (916) 444-5900 or [sacbreathe.org](http://sacbreathe.org).

## THE AIR OUTSIDE

The Yolo-Solano Air Quality Management District is responsible for protecting human health and property from the harmful effects of air pollution. The District has jurisdiction over all of Yolo County and the north-east portion of Solano County.

The District is governed by an air quality management board composed of representatives from both the county boards of supervisors and mayors/city council members from each city.

The District’s rule-making authority is specified by California Health and Safety Code section 40702. In addition, the District’s rules and regulations are based on other federal and state air quality requirements.

Prevention is the most effective and best strategy to protect and enhance air quality.

### AIR QUALITY RESOURCES

Yolo-Solano Air Quality Management District  
(530) 757-3650 or (800) 287-3650  
[www.ysaqmd.org](http://www.ysaqmd.org)

Local Air Quality Forecasts  
[ysaqmd.enviroflash.org](http://ysaqmd.enviroflash.org)

Ag Burn Line  
(800) 246-3660 or (530) 757-3660

Report Smoking Vehicles  
(800) End Smog

## THINGS YOU CAN DO TO CONTRIBUTE TO GOOD AIR QUALITY

- Reduce your energy consumption
- Turn lights off when not in use, and replace incandescent light bulbs with more energy efficient models, like compact fluorescents and LED bulbs.
- Drive less, maintain your vehicles well, check your tire pressure monthly, refuel your vehicle in the cooler times of day and don't top off your tank.
- Make fuel efficiency and pollution ratings part of your next vehicle purchasing decision.
- Use energy-efficient appliances.
- Landscape to shield your home from heat in the summer, and maximize sun time in the winter.
- Ride your bike or walk for errands.
- Car pool to work and social events.
- Use public transportation when possible.
- Buy local products to reduce air pollution generated by shipping.
- Simplify! Use fewer products in your daily living.
- Provide regular maintenance for consumer goods to extend their usable life span. If you buy fewer things, fewer things will be shipped via truck, which will reduce the engine emissions, resulting in less air pollution, and help preserve resources (which are used to make consumer goods).
- Consider adding a gas insert to your wood-burning fireplace or upgrade to an EPA Phase II wood burning appliance.
- Consider solar panels or passive solar systems for heating hot water and pools.
- Consider switching from gas-powered gardening equipment to electric, or better yet, use manual equipment.

### PUBLIC TRANSPORTATION RESOURCES

Yolo Bus  
(530) 666-2877  
[yolobus.com](http://yolobus.com)

Amtrak California  
(800) 872-7245  
[amtrakcalifornia.com](http://amtrakcalifornia.com)

Greyhound Bus Services  
[greyhound.com](http://greyhound.com)

Green Tortoise Adventure  
Travel  
(800) TORTOISE  
(1-800-867-8647)  
[greentortoise.com](http://greentortoise.com)



Photo courtesy of Creative Commons

# ENERGY

The majority of electricity in the United States comes from coal, nuclear, large hydroelectric and natural gas plants. The burning of non-renewable fossil fuels is particularly harmful to air quality and public health. Researchers estimate that as many as 500,000 deaths in the United States alone can be linked to that cause each year. Thus, choosing green energy is an important way to protect your health while reducing your contribution to global warming. Green energy is electricity from renewable sources – sun, wind, biomass and geothermal. These renewable sources emit little pollution and, unlike nuclear production, leave no radioactive waste.

## 10 WAYS TO SAVE ENERGY RIGHT NOW

1. Wash your clothes in cold water and only wash full loads. Consider a clothesline to let nature and the sun do the drying.  
[www1.eere.energy.gov/consumer/tips/laundry.html](http://www1.eere.energy.gov/consumer/tips/laundry.html)  
[energyefficiency.org/cold/en/home.html](http://energyefficiency.org/cold/en/home.html)
2. Get in the habit of saving energy in your kitchen. Use the microwave or a crock pot rather than the oven to cook dinner. Or if the oven is used, prepare food and meals in bulk and freeze the extra for enjoyment later.
3. In Winter, pull your drapes shut tight on cold nights and open them in the day to let in the sunshine. In summer, do the opposite (close your drapes during the day, and open them at night). This is the easiest way to use passive solar energy. [eartheasy.com/live\\_cheapheat.htm](http://eartheasy.com/live_cheapheat.htm)
4. In Winter, turn your thermostat down at night. You will save an average of 3 percent on your heating bill for every 1 degree Fahrenheit that you turn down your thermostat.  
[www.eere.energy.gov/buildings/info/homes/](http://www.eere.energy.gov/buildings/info/homes/)
5. Turn off the lights every time you leave a room. Make this simple action a regular habit.  
[www.ase.org/content/article/detail/965](http://www.ase.org/content/article/detail/965)
6. Plug your television, computer and other electronic devices into a power strip and turn it off when you are finished. Electronics use power even when they are not in use.  
[www.greenercomputing.com](http://www.greenercomputing.com) & <http://ecenter.colorado.edu/energy/stopwaste/#electronics>
7. One day each week, find another way to get to work besides driving alone in your car. Try transit, biking, carpooling, walking or telecommuting. [www.ridesmartthursdays.com](http://www.ridesmartthursdays.com)
8. Carpool when you go with friends on trips. If you ride with three friends, you will save three round trips. [www.erideshare.com](http://www.erideshare.com)
9. Make sure your tires are properly inflated, and then drive at a steady speed. Keeping the right amount of air in your tires can increase gas mileage by 3.3 percent. [www.fueleconomy.gov](http://www.fueleconomy.gov)
10. Try turning down the temperature in your water heater five degrees F. Your water will likely still be hot enough, but your energy bill will go down.  
[www1.eere.energy.gov/consumer/tips/water\\_heating.html](http://www1.eere.energy.gov/consumer/tips/water_heating.html)

## 3 THINGS THAT REQUIRE SOME INVESTMENT

1. **Energy Efficient Lighting:** Lights use about 12% of a home's electricity, so using efficient lighting inside and outside of the home can save you money and reduce air pollution. Energy efficient compact fluorescent lights work well inside; low-pressure sodium (LPS) lamps are good for outside use. Motion sensors and shielded, downward reflectors work best. By limiting outside "glare", you'll save energy costs, maintain a better relationship with neighbors, minimize disruption to wildlife, and preserve our view of the stars.
2. **Energy Efficient Appliances:** Appliances, especially refrigerators, use a tremendous amount of energy. Buying products certified by the Energy Star Program guarantees that the product uses less energy by "powering down" when not in use. Energy Star certified products are

available at all major retail outlets. For more information about the US Environmental Protection Agency's Energy Star program and products, go to [www.energystar.gov](http://www.energystar.gov) or call (888) STAR-YES.

3. **Energy Efficient Windows:** An average home may lose 30 percent of its heat and air-conditioning through its windows. Energy efficient windows can allow you to:
- Select a smaller, less expensive heating and cooling system;
  - Lower utility costs because of decreased air infiltration and condensation as well as decreased heat loss/gain;
  - Lower maintenance and replacement costs; and
  - Experience greater comfort in the home.

One way to determine the energy performance of a window is to look for the Energy Star® label. Energy Star® is a program developed by the U.S. Department of Energy and the Environmental Protection Agency. The program identifies the most energy-efficient windows based on requirements for specific climates. Energy Star® windows are usually 15 to 40 percent more energy-efficient than those that meet typical building codes. More information about energy efficient windows can be found at:

[msucare.com/pubs/publications/p2274.html](http://msucare.com/pubs/publications/p2274.html)



**ENERGY CONSERVATION PROGRAMS,  
RENEWABLE ENERGY PROGRAMS,  
AND PRODUCTS RESOURCES:**

Flex your Power

[www.fypower.org](http://www.fypower.org)

Global Green USA

(310) 581-2700

[globalgreen.org](http://globalgreen.org)

National Center for Appropriate

Technology

(530) 792-7338

[www.ncat.org](http://www.ncat.org)

Premier Power (Solar Energy)

(916) 939-0400

[info@premierpower.com](mailto:info@premierpower.com)

Pacific Gas and Electric Company

[www.pge.com](http://www.pge.com)



# REGIONAL PARKS AND FACILITIES

Yolo County includes a variety of parks and facilities for many forms of outdoor recreation. The Yolo County Parks and Resources Department is responsible for the maintenance and improvement of County parks, including a campground, several boat launches and fishing accesses, and the Gibson Historical Museum.

For general information and campground reservations call (530) 406-4880.

## CACHE CREEK CANYON

1475 Hwy 16, Rumsey, CA 95679

Cache Creek Canyon Regional Park is located along Highway 16, approximately 6 miles north of the town of Rumsey. This 700+ acre park consists of 3 developed areas: Upper, Middle, and Lower sites. This park also provides access to 54,000 acres of Federal Bureau of Land Management property, including the Blue Ridge Trail.



Photo by Yolo County Parks and Resources

### Upper Site (Day use only)

- Day Use Parking
- Fishing Access
- Rest room
- Rafting Concession Parking

**Middle Site** (Cache Creek Campground): All camping sites must be physically occupied by people and camping equipment. Campers must be 18 years of age to camp alone, children must be accompanied by an adult. Park Hosts are on duty at the site.

### Lower Site (Day use only)

- Access to County Road 40 and Federal Bureau of Land Management Property
- Rafting Concession take-out (2-Day trip only)
- Day Use Parking

Hiking: Blue Ridge Trail and Frog Pond Trail -access from Road 40 leads to trail heads and BLM lands. Maps and detailed information about these and other nearby routes are available at [yolo-hiker.org](http://yolo-hiker.org).

**YOLO COUNTY  
RECREATION RESOURCES:**  
Yolo County Parks and Resources  
120 West Main Street, Suite C  
Woodland, CA 95695  
[www.yolocounty.org](http://www.yolocounty.org)  
Yolo County Visitor's Bureau  
[www.yolocvb.org](http://www.yolocvb.org)  
Gazetteer and City Park information  
[california.hometownlocator.com](http://california.hometownlocator.com)  
Yolo Hiker  
[yolohiker.org](http://yolohiker.org)

## CAMP HASWELL

1999 Hwy 16, Rumsey, CA 95679

Located two miles north of the town of Rumsey along State Highway 16. This old Boy Scout Camp is ideally situated to enjoy Cache Creek, have a picnic, or just pull off the road for a rest in the summer. This park is heavily used by rafters as a take-out site. Overnight Camping is prohibited.



Photo by Yolo County Parks and Resources



Photo by Yolo County Parks and Resources

## CLARKSBURG BOAT LAUNCH

38125 CR E9, Old River Road, Clarksburg, CA 95612

The Clarksburg facility is located on a 3.9 acre shelf of land inside the Sacramento River Levee just 1.5 miles below Clarksburg & County Road E-9. The boat ramp serves as an access to the Sacramento River for boating, water skiing, and fishing. Parking is provided. Overnight camping is prohibited.

## ELKHORN REGIONAL PARK

18989 Old River Road, West Sacramento, CA 95691

Elkhorn Regional Park is located on the berm between the levee and the Sacramento River, approximately 1.75 miles south of where I-5 crosses the Sacramento River on Old River Road. The park is 55 acres of lush riparian vegetation and supports a wide variety of wildlife. Recreational opportunities include fishing, picnicking, bird watching, nature study, and boating. The park has a boat ramp, picnic area, parking lot, and sanitary facilities. The park is open from 7:00 a.m. until dusk, except when river conditions require closure. A use fee is required. Overnight camping is prohibited. A Park Host resides on site.



Photo by Yolo County Parks and Resources



Photo by Yolo County Parks and Resources

## ESPARTO COMMUNITY PARK

17001 Yolo Ave, Esparto, CA 95627

The Esparto Community Park is a 4 acre site located along State Highway 16 in Esparto. There are picnic tables, a barbecue, large shade trees, a turf area, playground, and rest rooms. Overnight camping is prohibited.

## YOLO COUNTY HISTORICAL MUSEUM GIBSON HOUSE

512 Gibson Road, Woodland, California 95695

This 1850's-70's Classical Revival home, extensively remodeled before the turn of the century, was built by William Byas Gibson and occupied by his family until 1963. It now houses rooms of furnishings depicting different styles and eras. The outbuildings contain displays of agriculture and everyday life of the same period. The museum is located at 512 Gibson Road one half mile west of the County Fair Mall on East Street in urban Woodland in a two and a half acre park. The house is surrounded with towering trees, historical plantings and groomed lawn. Convenient free parking is available. The park is open during regular museum hours for picnicking. The grounds are available, on a fee basis, for weddings, receptions, family reunions and other group activities. Call (530) 666-1045



Photo by Yolo County Parks and Resources



Photo by Yolo County Parks and Resources

## GRASSLANDS REGIONAL PARK

30475 CR 104, Davis, CA 95616

Grasslands Regional Park is a 320-acre park that contains significant natural resources and habitat for wildlife species, and also serves a variety of existing active recreation uses, including model airplane soaring, archery, and horseshoes. The park is located south of Davis off of Mace Blvd. approximately four miles south of I-80. Overnight camping is prohibited. Check the Sacramento Valley Soaring Society [svss.org](http://svss.org) for information on flying radio-controlled gliders at Grasslands Park. To

find out more about the The Yolo Bowmen Archery Range visit [yolobowmen.com](http://yolobowmen.com).

## KNIGHTS LANDING BOAT LAUNCH

9350 Hwy 45, Knights Landing, CA 95645

Knights Landing Boat Launch is located on four acres near the town of Knights Landing, at the junction of the Sacramento River and Sycamore Slough, on State Route 45, about 25 miles northwest of Sacramento. This park provides access to the Sacramento River for boating, water skiing, and fishing. Parking and sanitary facilities are available. A launch fee is required. Overnight camping is prohibited.

## PUTAH CREEK FISHING ACCESS

24135 Hwy 128, Winters, CA 95694

Putah Creek Fishing Access is located on 150 acres, along a 3.25 mile stretch of Putah Creek and State Highway 128, seven miles west of the town of Winters. The park offers picnic tables, barbecues, fishing, parking, and sanitary facilities. A day use fee is required. Overnight camping is allowed at Sites 1 and 4 (Friday 4pm - Sunday 4pm) by reservation only.



Photo by Yolo County Parks and Resources

## VERNON NICHOLS

17195 CR 57, Guinda, CA 95637

Nichols Park is located along Cache Creek off of State Highway 16 on County Road 57, at the town of Guinda. This 22 acre park provides picnic tables, barbecues, a play area, a beach area, swimming, fishing, playground equipment, and chemical toilets. There is a Park Host on site. The park closes at dusk. Overnight camping is prohibited.



Photo by Yolo County Parks and Resources

## YOLO COUNTY PARKS ADVISORY COMMITTEE

The Parks, Recreation, and Wildlife Advisory Committee (PRWAC) was formed to act in an advisory capacity to County staff and the Board of Supervisors regarding County Park and open space matters. The Committee's duties are to consider the needs of the county with respect to activities that include: development of a regional park system; consideration of proposals or requests submitted by individual citizens or groups; and to make recommendations to the County Parks and Resources Director, Director of Planning and Public Works, County Administrative Officer, Planning Commission, and Board of Supervisors. The Committee is comprised of ten members of the public who are appointed by the Board of Supervisors to four-year terms.

Meetings of the PRWAC are generally held the second Monday of every month at 7:00 p.m. Meetings are open to the public. An agenda for the PRWAC meeting is available on line and via e-mail by request. For further information regarding the PRWAC, please contact Associate Parks Planner, Dimitrios Georges at (530) 406-4884.



Photo by Yolo County Parks and Resources

# YOLO COUNTY AGRICULTURE

## YOLO COUNTY DEPARTMENT OF AGRICULTURE

The Department of Agriculture's primary responsibility is to enforce agricultural related laws and regulations pertaining to pesticide use enforcement, weights and measures, State and Federal plant quarantine including export certification, State seed and nursery inspection, and minimum State quality standards for produce. The Department is also responsible for carrying out County-wide programs for both pest detection and weed and vertebrate pest management. For information about the latest agricultural crop report, Yolo Certified Organic Agriculture, pesticide use forms and handouts, and A Taste of Yolo visit the Agriculture and Weights and Measurement section of the Yolo County website at [www.yolocounty.org](http://www.yolocounty.org).



Photo by Yolo RCD

## 4-H YOUTH DEVELOPMENT PROGRAM

The 4-H Youth Development program is a nonprofit youth educational program administered through the UC Cooperative Extension. 4-H stands for the four-fold development of youth: Head, Heart, Hands, and Health. 4-H currently serves 450 families in Yolo County, including 600 Youth and 270 Adults. The program includes youth ages 5 through 19 from all ethnic, racial, and socio-economic backgrounds who live in rural, suburban, and urban communities.

The club program has monthly Youth club meetings to discuss their project work in Animal Science, Plant Science, Family & Consumer Sciences, Health & Leisure, and Social Science. Parents, many who are 4-H alumni, serve as 4-H leaders for projects. Yolo County 4-H clubs hold a competitive "Spring Show" at the Yolo County Fairgrounds in Woodland each year to display 4-H members' work. Yolo County has 14 clubs located in: Clarksburg, Davis (3), Esparto/Capay Valley, Winters, Woodland (5), and Zamora.

For more information, call (530) 666-8703 or visit: [ceyolo.ucdavis.edu/4-H\\_Program](http://ceyolo.ucdavis.edu/4-H_Program)

## YOLO COUNTY FARMERS' MARKETS

Until 1977, regulations required farmers to properly pack, size, and label their fresh fruits, nuts, and vegetables in standard containers to transport and sell in markets anywhere other than the farm site. In 1977, Certified farmers' markets (CFM's) exempted farmers from packing, sizing, and labeling requirements, allowing them to directly market their produce to the public.

CFM's benefit the agricultural community and consumers. CFM's provide a flexible marketing alternative that offers high quality, fresh produce. CFM's provide consumers with opportunities to learn how their food is produced as they meet the farmers who grow it.

### CAPAY VALLEY REGIONAL FARMERS MARKET

Esparto Community Park- 16960 Yolo Ave, Esparto – Seasonal

The Capay Valley Regional Farmers Market offers local and fresh fruits and vegetables, eggs, herbs, tortillas, oils, nuts, lavender products, breads, honey, jam and jellies and more. The market also features music, community organizations, local crafts and family activities. Everything from gourd art, massage therapy, jewelry, yarn spinning, and paintings is available to market shoppers. For more information call (530) 787-3536 or visit:

[www.capayvalleyfarmersmarket.com](http://www.capayvalleyfarmersmarket.com)



Photo by Capay Valley Vision

**DAVIS FARMERS' MARKET** Central Park, 4th & C Street, Davis - Year Round



Photo by Claire Main

The Davis Farmers Market celebrated its 30th anniversary in 2006 and frequently voted "best thing to do in Davis". Open rain or shine, the market offers a wide range of fruits and vegetables, including certified organic produce, as well as fresh baked goods, flowers and plants. For more information call (530) 756-1695 or visit [www.davisfarmersmarket.org](http://www.davisfarmersmarket.org)

### WINTERS FARMERS' MARKET

Rotary Park, Winters- Seasonal

Set in the historic downtown Winters, the weekly market provides access to beautiful, locally grown fresh fruit and vegetables of Yolo county. In addition to fresh produce, shoppers can find fresh cut flowers, baked goods, coffee and locally prepared foods. For more information visit: [www.wintersfarmermarket.com](http://www.wintersfarmermarket.com)

### THE WOODLAND FARMERS' MARKET

Freeman Park on Main Street, Woodland- Seasonal

The market is open rain or shine from May through October. All produce and market goods are locally produced. In addition to fresh produce the market offers honey, soaps and lotions. The market location has plenty of parking and easy access for elderly customers and customers with children. For more information visit: [www.woodlandfarmersmarket.com](http://www.woodlandfarmersmarket.com)



Photo by Inside Woodland

## WILDLIFE

You have probably noticed that wildlife doesn't think much of property boundaries or fences. Depending on where in the county you live, you're likely to see familiar native species including the burrowing owl, Swainson's hawk, mule deer, raccoon, red-tailed and red-shouldered hawk, and skunks. Threatened and endangered species that make their homes in Yolo County include vernal pool fairy shrimp, California tiger salamander, and Valley elderberry long-horned beetle. These animals are part of the biodiversity of our watersheds, though we don't yet fully understand how each animal affects the larger ecosystem.



Photo by Yolo RCD

If we are to be good stewards, it is important to respect and appreciate these creatures and develop ways that we can coexist with them and their natural environment. Yolo County is home to a lot of critters; if you create the good habitat (scrubby bushes to hide under, natural food sources) – or bad habitat (smelly trash, junk heaps)- desirable and/or undesirable animal guests will come visiting.

## FOR THE HEALTH OF DOMESTIC AND WILD ANIMALS...

- Do not allow pets to roam in wildlands, where they may pick up diseased ticks and fleas, encounter rattlesnakes, and disturb or harm native wildlife.
- If you want to discourage wildlife from living near your house, eliminate nesting sites by filling holes, mending screens, and removing piles of wood, brush, and rocks after any wild animals have finished nesting. To check if a site is currently in use by wildlife, sprinkle flour near the entrance and for several days check for animal tracks.
- Don't leave pet food outside. This can create a dependency on humans and cause conflicts between wildlife and people.



Photo by US Fish and Wildlife Service



Photo by US Fish and Wildlife Service

- Make sure garbage cans and compost bins are covered and secure. Control the source of temptation, rather than the animal itself.
- Be aware that dumping unwanted animals like goldfish, crayfish and minnows (from a recent fishing trip) into streams has serious consequences. These creatures compete with our native fish, aquatic insects and amphibians for food and space, and can have drastic impacts on their longevity and well-being.
- Avoid using poisons and pesticides in general (they are non-discriminate and may end up harming pets and animals/

plants in the watershed) to control pests. The Yolo RCD (530-662-2037) can help provide strategies for non-chemical means of deterring wildlife.

- If you find a baby bird that has fallen from its nest, carefully put it back. A mother bird will not reject a chick just because it has come in contact with humans. If you find an uninjured baby squirrel, place it in a shallow, towel-lined box at the base of the tree and leave it undisturbed for 4-6 hours so the mother may take it back to the nest. Do not give injured animals any food or water.
- Do not attempt to feed, trap, harm, or handle any wild animal!

**For help with domestic animal problems, or to report dead animals,** contact Yolo County Animal Services at (530) 668-5280.

**To report vicious animals, strays, injured animals, or make a complaint:**

- In Woodland, Davis, Winters, Esparto, Dunnigan, Madison, or Brooks call: (530) 668-5287
- In West Sacramento call: (916) 375-6492

The Animal Services Officers work seven days per week, 8:00am to 8:00pm. After hours, an on-call officer is available for emergencies such as injured animals, loose livestock, vicious animals, bites, or suspected rabies-inflicted animals

**To report sick, injured, or orphaned wild animals, contact the following organizations:**

California Raptor Center: (530) 752-9994 or [www.vetmed.ucdavis.edu/ars/raptor.htm](http://www.vetmed.ucdavis.edu/ars/raptor.htm)

Feral Feline Organization: (530) 574-0817 or [www.feralfeline.org](http://www.feralfeline.org)

Wildlife Care Association: (916) 965-WILD or [www.wildlifecareassociation.net](http://www.wildlifecareassociation.net)

NorCalBats: (530) 902-1918 or [www.norcalbats.org](http://www.norcalbats.org)

## THREATENED AND EN-DANGERED SPECIES

It is illegal to harm any animal listed as threatened or endangered by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. "Harm" includes disturbing habitat in any way (i.e. cutting down a tree that provides food, shelter or nesting space) as well as more direct harm (i.e. hunting or fishing). To report the sighting of a mountain lion or an endangered plant or animal species, contact the California Department of Fish and Game Region 2 Headquarters at (916) 358-2900.



Photo by US Fish and Wildlife Service



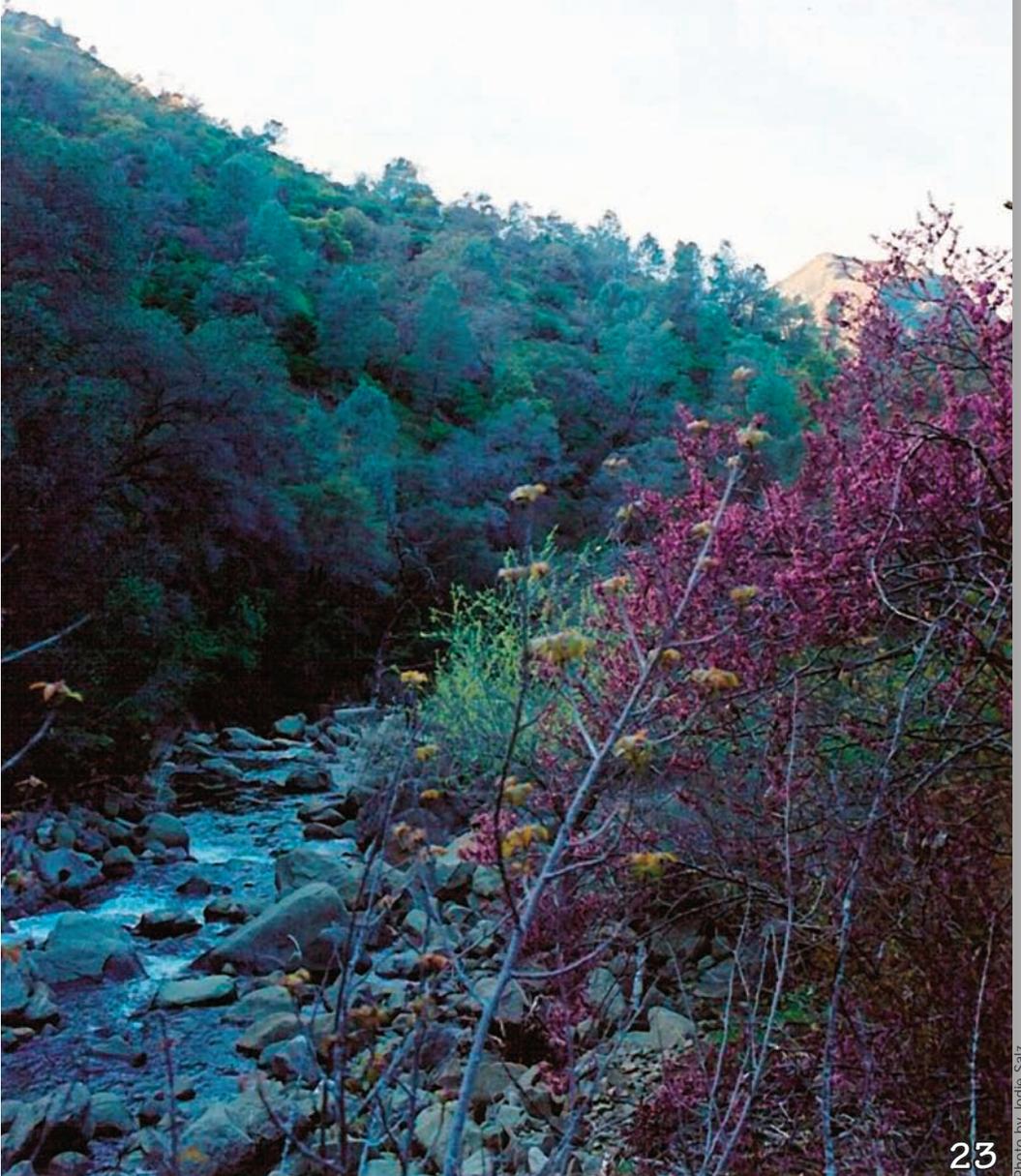
Photo by Jodie Saliz

## TO ATTRACT WILDLIFE TO YOUR YARD...

- Invite a diverse group of lizards, birds, and butterflies to your garden by selecting native plants that flower and bear fruit at different times of the year. Refer to the landscaping section on page 36 for helpful contacts.
- If you choose to have a bird feeder, remember to clean up loose seed to avoid attracting animals such as rats and coyotes. Regular bird and hummingbird nectar-type feeders should be cleaned and changed regularly (at least once a week) to avoid fermentation and mold growth and the spread of diseases between species.
- Birds – from hawks to hummingbirds – can be seriously injured by windows. To make your windows more visible, avoid placing indoor plants near windows, hang a stained glass ornament, use window coverings, place a decal on the window, or hang wind chimes.
- Be aware that dead, dying and hollow trees can serve as valuable habitat for wildlife. Consider leaving standing dead and dying trees in your yard unless they pose a human safety or property hazard. Also, allow some leaf litter to accumulate on the ground.
- Bats eat mosquitoes, moths and beetles. A single brown bat can catch more than 600 mosquitoes in an hour! To attract bats to your yard, install a bat house on a pole or building 15 feet or higher in an area that receives 6 or more hours of sunlight daily. For designs, please see *Bring Farm Edges Back to Life*, available on the Yolo RCD website at [www.yolorcd.org](http://www.yolorcd.org).
- Butterflies, birds and other wildlife are vulnerable to many pesticides and other chemicals. When you use chemicals, always follow label instructions on usage and disposal carefully; minimize chemical use by practicing organic gardening.
- When lighting your home, be sensitive to possible negative impacts on adjacent lands. Outdoor night lighting greatly disturbs wildlife foraging and movement patterns. Remember that the animals and plants around you are dependent on natural light – electric lights disrupt their cycles and can shorten their lives.
- Install bird boxes to encourage nesting on your property.
- Create brush piles of yard waste to provide habitat and shelter.
- Work with the Yolo RCD and NRCS to develop a conservation plan for wildlife habitat conservation (call 530-662-2037). You can monitor the results of your efforts with simple, low-cost techniques from *Monitoring on Your Farm*, available on the Yolo RCD website at [www.yolorcd.org](http://www.yolorcd.org).

Note: you **should not** attempt to create backyard habitat for birds or lizards in an area where you keep cats or dogs.

# *Watershed Stewardship at Home*



## HORSES AND LIVESTOCK

One of the pleasures of rural living is the ability to keep animals on your property. However, domestic animals require a lot of attention. If you bring animals onto your property, you should have a plan for:

- Shelter from the elements and secure confinement to your property.
- Manure and nitrogen management – you must ensure that animal wastes do not leave your property in storm runoff during a storm or in irrigation runoff, and do not attract undesirable insects or create unreasonable odors. Manure composting can help manage the waste load, save pick-up fees and create safe/bacteria-free fertilizer for gardens and crops.
- Feed and bedding storage – these need to be kept on your property (and out of surface runoff), and maintained so they do not attract wildlife, vermin or insects.
- Erosion control, especially for large animals.

Carefully consider the carrying capacity of your land in terms of water, forage and space. Follow all local, state and federal rules and regulations pertaining to building codes, stream setbacks, stream alteration, landscaping and manure management.

It is important to be aware of the potential impacts horses can have on the watershed. Cleared, compacted areas such as corrals and riding rings can contribute soil and sediment run-off to nearby streams, while horse wastes contribute excess nutrients and bacteria to waterways. These impacts can reduce water quality in the watershed, and can contribute to loss of stream, wetland, and marine/estuary habitat.

## SITE ASSESSMENT

### Evaluating Water Flow

- After a rain storm, is water pooling in certain areas?
- Does water drain from the manure pile? Is water running into the creek?

Any of these situations can potentially create pollution in our waterways. Install vegetative buffers or create sand and gravel basins next to corrals and around nearby stock ponds or streams, to create a natural filter to trap soil and nutrients before they can enter the waterways. To view a series of photo examples, visit: [www.livestockandland.org/Demonstration\\_Sites/pilot\\_site.html](http://www.livestockandland.org/Demonstration_Sites/pilot_site.html)

### Structural Drainage Issues

- How does water drain away from your barn, covered stalls and corral?
- Is mud a pervasive issue during the wet season?

Take photos of your drainage problems in the winter so you can remember where to add fill or improve drainage. Consider adding rain gutters to your barn so water is not shedding off the barn



Photo by Diane Crumley

into the stalls. Put extenders on barn down spouts to divert water away from stalls. Grade corrals so they drain away from stall doors.

### **Manure Management**

- If bedding or manure is traveling off-site, look to the source. Can manure and used bedding be stored elsewhere?
- Are they properly covered and maintained?

Composting manure can help manage the waste load, save waste pick-up fees, and create safe, bacteria-free fertilizer. For a series of photos that deal with both drainage and manure issues, link to:

[livestockandland.org/Demonstration\\_Sites/before\\_after.html](http://livestockandland.org/Demonstration_Sites/before_after.html)

Follow all local, state and federal rules and regulations pertaining to building codes, stream set-backs, stream alteration, landscaping, and manure management. To view a short video illustrating a number of cost effective solutions implemented through Ecology Action's Livestock and Land Program, and its partners at the Santa Cruz County RCD link to:

[www.livestockandland.org/Video/index.html](http://www.livestockandland.org/Video/index.html)

### **STABLE SAFETY TIPS**

- Remember that during power outages the automatic waterers in your stalls and pastures do not work. Have a backup plan for watering your animals.
- Always keep a halter and lead rope at your horse's stall or pasture in case of an emergency (like fire or flooding) so your animals can be removed quickly
- Paddocks attached to box stalls should have an exit gate in case of a barn fire
- Make sure all stall latches are horse-proof so your animals cannot escape onto the road or highway.
- Properties in the hills must have a 30-50 foot wide mowed or disced firebreak around all structures, including barns in the summer months. Consult your local fire department for firebreak requirements.
- Create an emergency animal evacuation plan for your animals in case of fire or natural disaster. This plan should include a list of people to call who can help you, directions about how to get animals out and where to take them.
- Do not use key locks to secure gates. Use combination locks: in an emergency situation you can tell rescuers the combination to allow them access to your property and animals

### **HORSE/LIVESTOCK HEALTH AND MAINTENANCE TIPS**

- Remember that horses need access to salt blocks.
- Don't feed horses directly on sand. Horses can't digest sand, and it can cause intestinal blockage.
- Horses and livestock need good light, ventilation and space to stay healthy and happy. Large animals should have a minimum of 400 square feet of living space with a shade or a covered area.
- Do not use barbwire fencing for horses. Use approved horse fencing (no climb or wood/vinyl rail fencing).
- Worm and rotate wormers every 3 months. Give West Nile vaccinations two times annually.



Photo by Yolo County RCD

## FLY CONTROL AND SANITATION

Fly control is extremely important to the health and well being of all animals. Use fans in your barn to control flies and keep animals cool during the summer months. Flies do not like air blowing on them, so turn the fans toward the animals to prevent flies from landing or laying eggs in your stalls. Good sanitation is the basic step in all fly management. Since the fly can

complete its life cycle in as little as seven days, removal of wet manure daily is necessary to break the breeding cycle. Keep manure piles covered and turn regularly to prevent and kill fly parasite larvae. Wet straw should not be allowed to pile up in or near buildings. Since straw is one of the best fly breeding materials, it is not recommended as bedding. Prevent spilled feed from accumulating by cleaning it up two times a week. Prevent leaky waterers that can create fly breeding habitat. Remove excess food daily. You can also add a layer of lime under the stall mats to control urine and fly breeding areas.

Killing adult flies may reduce the infestation, but elimination of breeding areas is necessary for management. Garbage cans and skips should have tight-fitting lids and be cleaned regularly. Dry and wet rubbish should be placed in plastic rubbish bags and sealed up. All waste receptacles should be located as far from building entrances as possible.

If you add a new barn and animals to your property, take into consideration the proximity of the location of the animals to your neighbor's home. The noise, flies, dust and odors can create a problem if established close to a residence, so good planning will make for happier neighbors.



Photo by USDA NRCS

*Yolo County has a Right To Farm Ordinance, which applies to properties located within a quarter mile of a farm operation. This ordinance protects a farmer's right to carry out all activities necessary to a farming operation. Protections include but are not limited to the right to operate machinery of all kinds and at all hours, application of fertilizers, pesticides and herbicides through ground or aerial spray, and other customary agricultural practices.*

### ANIMAL KEEPING RESOURCES

WA State University Small Farm Connection [smallfarms.wsu.edu/animals/index.html](http://smallfarms.wsu.edu/animals/index.html)

Healthy Animals [www.ars.usda.gov/is/np/ha](http://www.ars.usda.gov/is/np/ha)

Penn State Agricultural Alternatives [agalternatives.aers.psu.edu](http://agalternatives.aers.psu.edu)

Livestock and Land Program [www.livestockandland.org](http://www.livestockandland.org)



Photo by USDA NRCS

## BEEKEEPING

**B**eekeeping, or apiculture is the management of honeybees for human benefit. While beekeeping is traditionally practiced for honey harvest, the crop pollination provided by bees can be equally or more valuable. Other hive products are pollen, royal jelly, and propolis, which are also used for nutritional and medicinal purposes; and beeswax, which is used in candle making, cosmetics, wood polish, and for modeling.

Bees should not be considered pests. They are an integral part of agriculture and rural living, For the most part, honeybees are very docile. It is only when provoked that they become angry: if someone disturbs the hive by getting too close, moving it, or throwing something at it, the bees will react defensively, most likely by stinging.

In general, if you remember to keep a good distance from a hive you will not have a problem.

A common problem with bees around ranches and farms is water. Bees need water like everything else. Thirsty bees will go to the closest source available. That can be your pet's water bowl, swimming pool, water troughs, mud puddles, etc. This can be a nuisance because if the bees are stepped on or stuck on you, they will sting.

It is very hard to change bee's routine, and if your house or property is the only water source in the area, it will be impossible. Pet bowls are usually easy; just move them indoors for a week or so until the bees find a new place to go. Swimming pools are harder; you will have to cover the pool until they find a new place. Horse troughs will have to be emptied and water will have to be provided for the horses in another area. Basically you need to retrain the bees to use a different water source by taking the problem source away and providing a more appropriate source for them elsewhere.

Bees swarm in late spring and early summer. At that time, half of a hive will leave to go find a new home. Although a swarm can look very frightening, the bees are very docile at this time. If a swarm happens to come to your house, call a local beekeeper. They will come and remove the bees at little or no cost.

**DO NOT ATTEMPT TO REMOVE THE BEES YOURSELF, UNLESS YOU ARE AN EXPERIENCED BEEKEEPER!**

### BEEKEEPING RESOURCES

Local Beekeepers:

George Kimball (530) 661-3555

Bridgette Stewart (530) 315-0067

American Beekeeping Federation

[www.abfnet.org](http://www.abfnet.org)

BeeSource.com

[www.beesource.com](http://www.beesource.com)



Photo by Jodie Salz

## WASTE MANAGEMENT

One of the unavoidable by-products of life is waste – every living thing produces some form of it. Humans, with our capacity for creative consumption of almost every imaginable substance, produce a LOT of waste. Possibly the most effective thing any person can do to benefit their watershed is to reduce the amount of trash he/she produces. We hear a lot about recycling, and it's an important part of waste management, but in priority order, the steps of waste management are: Reduce, Re-Use, Recycle.

Reducing the amount of trash you produce and reusing items whenever possible are the most effective ways to save landfill space and conserve natural resources. With the ever-growing list of things we “must” have, or must replace, there is also an ever-growing pile of the things we discard along the way.

Waste management is a huge and growing concern for everyone, and provides one of our biggest stewardship challenges. Here is a brief look at the types of waste we need to manage for our watersheds to be healthy.

## MAINTAINING YOUR SEPTIC SYSTEM

- Conserve water to reduce the amount of wastewater to be treated. Low-flow toilets can substantially reduce your water consumption.
- Have your system inspected regularly. Pumping may be required in as little as three years and as many as twelve.
- Add a low maintenance filter to the outlet of the tank. For several hundred dollars you can extend the life of your drain field for years.
- Put food waste into the compost pile or trash. Food waste, including kitchen grease, can easily overwhelm your septic system.
- Maintain a healthy bacterial count by keeping bleach, anti-bacterial soap, paints, solvents and pesticides out of the system. Toxic chemicals destroy the bacteria that keep the system working and can leach into the environment.
- Contact your Yolo County Environmental Health Department to find out about permits and regulations.

### COMMERCIAL SEPTIC, PLUMBING AND ENGINEERING RESOURCES:

A-1 Septic Service  
(916) 371-4160  
Cost-U-Less Septic  
Pumping Service  
(530) 666-6005  
Frank's Septic Service Inc.  
(530) 662-1125  
Gwerder, John E.  
(530) 476-2374  
Houser Septic Tank Service  
(530) 666-0347  
United Site Service  
(800) 864-5387  
Yolo Pumping Service Inc.  
(530) 662-5534

### RESOURCES FOR WASTEWATER AND SEPTIC SYSTEMS:

Yolo County Environmental Health  
Department  
137 N. Cottonwood St. Suite 2400  
Woodland, CA 95695  
PHONE: (530) 666-8646  
FAX: (530) 669-1448

## COMPOSTING

- Composting helps convert “browns” (leaves, wood chips, branches, straw) and “greens” (food scraps, grass and garden waste) into usable fertilizer. It's easy, reduces landfill waste and provides a convenient, cost effective source of nutrients for your garden.
- Re-use your old outdoor trash can as a compost bin.
- Add garden trimmings, vegetable scraps, eggshells, coffee grinds and grass. Leave out the meats, fats and cheeses.
- If you don't have a big yard, learn about worm composting for food scraps
- Provide aeration and sunlight by mixing up the compost every 2 weeks.
- Home composting materials are also available at many stores. Try Gaiam at [www.gaiam.com](http://www.gaiam.com) or (877) 989-6321 and Green Culture at [www.composters.com](http://www.composters.com) or (877) 204-7336.
- The City of Davis regularly offers free composting classes to residents. For more information call (530) 757-5686 or visit [www.davisrecycling.org](http://www.davisrecycling.org)



UC Davis



UC Davis

### COMPOSTING RESOURCES

Davis Recycling

[www.city.davis.ca.us/pw/recycle/backyardcompost.cfm](http://www.city.davis.ca.us/pw/recycle/backyardcompost.cfm)

Backyard Composting Guide

[www.ci.davis.ca.us/pw/compost](http://www.ci.davis.ca.us/pw/compost)

Grasscycling

[www.city.davis.ca.us/pw/recycle/pdfs/grasscycling.pdf](http://www.city.davis.ca.us/pw/recycle/pdfs/grasscycling.pdf)

Using Compost

[www.valcorerecycling.org/pdf\\_files/using\\_COMPOST.pdf](http://www.valcorerecycling.org/pdf_files/using_COMPOST.pdf)

Compost Crops

[www.valcorerecycling.org/pdf\\_files/crops\\_COMPOST.pdf](http://www.valcorerecycling.org/pdf_files/crops_COMPOST.pdf)

Earthworm composting

[cityofdavis.org/pw/compost/vermicomposting.cfm](http://cityofdavis.org/pw/compost/vermicomposting.cfm)

Californians against Waste

[www.cawrecycles.org/living\\_green/composting](http://www.cawrecycles.org/living_green/composting)

## GARBAGE & RECYCLING

Residents and businesses located within the cities and countryside of Yolo County are subject to mandatory garbage and recycling services, as determined by municipal or county ordinance. Each Yolo County city and its neighboring unincorporated area contracts independently with a private service provider to collect garbage, recyclables and/or yard waste material. Residents and businesses may self-haul their own refuse, recyclables and compostables to any licensed disposal, recycling, or composting site during regular business hours.

For additional information on garbage and recycling in the cities and County of Yolo, look on: [www.yolocounty.org](http://www.yolocounty.org) and click on the Landfill tab.

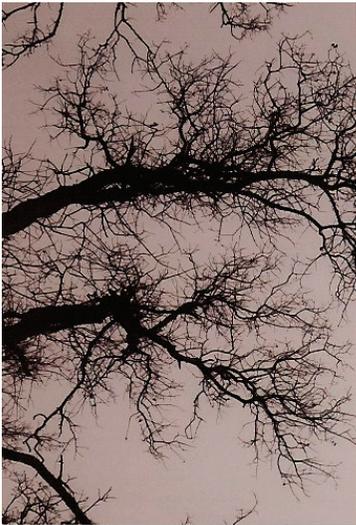


Photo by Jodie Saltz

### GARBAGE SERVICE PROVIDERS:

Waste Management of Woodland, West Sacramento & Winters  
(530) 662-8748

[www.wm.com/Templates/FAC4032/contacts.asp](http://www.wm.com/Templates/FAC4032/contacts.asp)

Davis Waste Removal  
(530) 756-4646

[www.dwrco.com](http://www.dwrco.com)

Cacheville Community Service District  
(530) 662-0587

Esparto Community Services District  
(530) 787-4502

Knights Landing Community Services District  
(530) 383-8517

Madison Community Services District  
(530) 666-2888

All other unincorporated areas:

Yolo County Planning & Public Works Department  
(530) 666-8729 or (530) 666-8856

### YOLO COUNTY LANDFILL:

Yolo County Central Landfill  
(530) 666-8729

44090 County Road 28H  
Woodland, CA 95776

[www.ci.davis.ca.us/pw/recycle/yclf.cfm](http://www.ci.davis.ca.us/pw/recycle/yclf.cfm)

### RECYCLABLES

Accumulating some trash is inevitable. Luckily, much of our trash is recyclable. Most trash haulers accept aluminum/tin/steel cans, glass bottles and jars, plastic containers with necks, newspaper, mixed paper and cardboard. For specific information on what can be recycled in your area, call the number on your trash hauler bill.



## EVERYDAY TIPS TO REDUCE TRASH...

- Tell the cashier you don't need a bag for small items. If you do take a bag, re-use it as a trash bag or recycling receptacle. Ask your grocery store where you can recycle your old bags.
- When purchasing "take out" food, leave out the disposable napkins and utensils if you're on the way home.
- Bring your own "to go" containers to restaurants.
- Keep a coffee mug or sports bottle in the car. Some retailers offer a discount if you bring your own cup.
- Buy reusable bags for grocery shopping (most stores give a discount when you use them).
- Print double-sided, or use the back of discard paper for scratch paper.
- Make sure your trash makes it into the trash truck. Trash blown out of the car or curbside bin ends up in the storm drain system, which flows directly to the nearest water body unfiltered.
- Get a water filter and a re-usable, durable water bottle instead of purchasing bottled water.
- Bring lunch from home in a reusable container.
- Give unwanted household items to a thrift store or charity.
- Pay bills electronically (save paper and postage money).
- Use cloth towels and napkins instead of paper.
- Have your name removed from junk mail lists at: [www.dmaconsumers.org/cgi/offmailing](http://www.dmaconsumers.org/cgi/offmailing)

For regular trash pickup schedules, to order new bins, or to arrange for a bulky item pickup, contact your trash hauler at the number on your monthly bill.

For information about when and where to take your recyclables and hazardous waste in Yolo County, check the "Waste" section in the phone book, or visit [www.recycle-guide.com](http://www.recycle-guide.com), or call one of the numbers listed below:

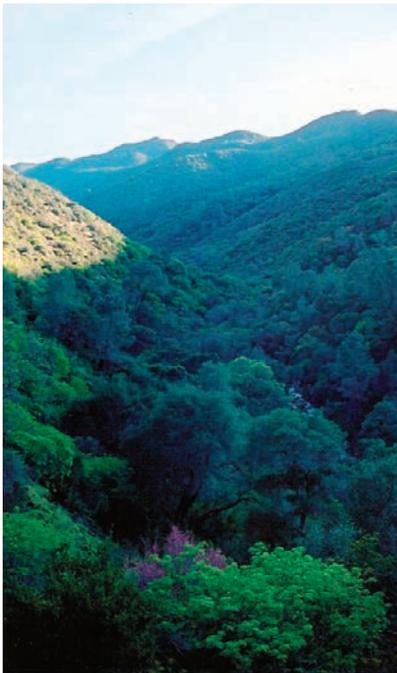


Photo by Jodie Saliz

### **Local Oil and Hazardous Waste:**

1-800-CLEANUP

For Local NiCad Battery Drop-Off Locations:

1-800-BATTERY (Charge up to Recycle)

### **PCBs or Radioactive Waste:**

(530) 666-8852 or (530) 666-8856 (Yolo County Planning and Public Works, Integrated Waste Management)

[www.yolocounty.org/Index.aspx?page=1359](http://www.yolocounty.org/Index.aspx?page=1359)

### **Medical Waste:**

(916) 327-6904 (State Dept. Health Services)

### **Low Level Radioactive Waste:**

(916) 323-3693 (State Dept. Health Services)

### **Explosives:**

Call your local fire department

To Report Illegal Dumping of Hazardous Waste:

Legal Enforcement Agency (LEA) (530) 666-8646 or 9-1-1

## WATER CONSERVATION

No matter where our water comes from, water conservation is part of our future. Water conservation is good for the watershed and your wallet: using water wisely saves you money. Here are some effective measures for conserving water at home.

### EASY WATER CONSERVATION TIPS:

- Water your lawn only when it needs it. Step on your grass. If it springs back when you lift your foot, it doesn't need water. Adjusting your sprinkler system to run with more days between watering saves 750-1,500 gallons per month. Better yet, especially in times of drought, water with a hose (for more information visit [www.ipm.ucdavis.edu/TOOLS/TURF/MAINTAIN/irrigate.html](http://www.ipm.ucdavis.edu/TOOLS/TURF/MAINTAIN/irrigate.html)). Better still, replace your lawn with drought-tolerant plants (check out the information at [redwoodbarn.com/droughttolerant.html](http://redwoodbarn.com/droughttolerant.html))
- Fixing leaky faucets and plumbing joints saves 20 gallons per day for every leak stopped.
- Installing water-saving shower heads or flow restrictors saves 500 to 800 gallons per month.
- Running only full loads in the washing machine and dishwasher saves 300 to 800 gallons per month.
- Shortening your showers for even one or two minutes can save up to 700 gallons per month.
- Using a broom instead of a hose to clean driveways and sidewalks saves 150 gallons or more each time (more than 600 gallons a month if you do it once a week).
- Not using your toilet as an ashtray or wastebasket saves 400 to 600 gallons per month, plus it's easier on your septic system.
- Replace high volume flush toilets. Modern, low-flush models use less than 1/3 the water of old models, saving about 8,500 gallons per year for the average single-family household.
- Capture tap water. While you wait for hot water to come down the pipes, catch the flow in a watering can to use later on houseplants or your garden. This saves 200 to 300 gallons per month.
- Don't water the sidewalks, driveway or gutter. Adjust your sprinklers so that water lands on your lawn or garden where it belongs—and only there. You'll save 500 gallons per month.
- If you have a pool, use a pool cover to cut down on evaporation. It will keep your pool cleaner and reduce the need to add chemicals, while saving an average of 1,000 gallons a month.
- When it's time for a new washing machine, buy a water-saving model. Water-wise machines use 1/3 less water, half the energy, and require less detergent and washing additives.



## PRACTICE WATER-WISE GARDENING:

- Mulch. Place a 2 to 4 inch layer of organic matter, like compost, ground bark, or wood shavings around the base of plants. Mulching cools the soil, slows evaporation, and reduces unwanted weeds.
- Use timers. Forgetting to turn off the water results in a great deal of waste. There are many timers available, from high-tech irrigation controllers to mechanical hose-end shutoffs that will help prevent water waste. Even setting a simple kitchen timer can remind you to turn off sprinklers.
- Use drip irrigation. Drip irrigation applies water slowly, directly to the root area, reducing evaporation and eliminating runoff.
- Maintain sprinklers. Check sprinklers when they are running and then make adjustments to prevent over-spray. Fix all leaks and broken sprinklers.
- Check the washers on all your hose bibs, and install multiple pattern hose nozzles on every hose. These simple steps will stop leaks, which waste water, drop by drop.
- Control weeds. They compete with desirable plants for moisture and soil nutrients.

### WATER CONSERVATION RESOURCES:

Yolo County Flood Control and Water Conservation District  
(530) 662-0265

[www.ycfwcd.org/index.html](http://www.ycfwcd.org/index.html)

Water Resources Association of Yolo County

[www.yolowra.org/DroughtPageLinks.html](http://www.yolowra.org/DroughtPageLinks.html)

UC Davis Arboretum

[arboretum.ucdavis.edu/valleywise\\_gardening.aspx](http://arboretum.ucdavis.edu/valleywise_gardening.aspx)

California Water Awareness Campaign

[www.wateraware.org](http://www.wateraware.org)

EPA's WaterSense Program

[www.epa.gov/watersense](http://www.epa.gov/watersense)

City of Davis Water Conservation Program

[cityofdavis.org/pw/water/conserv](http://cityofdavis.org/pw/water/conserv)

City of Woodland Water Conservation

[cityofwoodland.org/gov/depts/pw/areas/environmental\\_services/water](http://cityofwoodland.org/gov/depts/pw/areas/environmental_services/water)



## CREATING WILDLIFE HABITAT

One of the costs of a growing human population is the loss of habitat for native plants and animals. Habitat is a combination of food, water, shelter, and space arranged to meet the needs of wildlife. Residents can counter habitat losses to development by providing habitat on their property. Even a small yard can be landscaped to attract birds, butterflies, beneficial insects, and small animals. Trees, shrubs, and other plants provide shelter and food for wildlife.

The types of habitat-friendly plants in your garden will help determine the wildlife species attracted to your back yard. Nesting boxes, feeders, and watering sites can be added to improve the habitat.

### PLANNING

Planning is necessary for attractive and productive wildlife habitat. You have both a horizontal area to work with – the size of your lot – as well as a vertical area that stretches from your soil to the treetops. The vertical area is composed of the canopy formed by the tallest tree branches; understory vegetation consisting of smaller trees, shrubs, and vines; the floor which is often dominated by low-growing groundcovers; and the basement where a variety of organisms exist in the soil. Different wildlife species live in each of these zones, so numerous habitats can be provided on a small piece of land.

Trees and shrubs are the backbone of any landscaping design and are important for wildlife shelter. Many tree and shrub species are excellent sources of food for wildlife. Proper selection of plant material can meet both the aesthetic needs of the homeowner and the food and shelter needs of wildlife. Remember that you are part of the habitat, and so are your pets. Wildlife and domestic animals don't often mix well: domestic and feral cats are drastically reducing songbird populations and compete with owls and raptors for mice and gophers. When you landscape for wildlife, consider ways you can exclude domestic animals. There are special fencing additions that will keep your animals in a designated part of your yard, leaving the rest of your property safe for wildlife. One brand can be found here: [www.cattence.com](http://www.cattence.com).

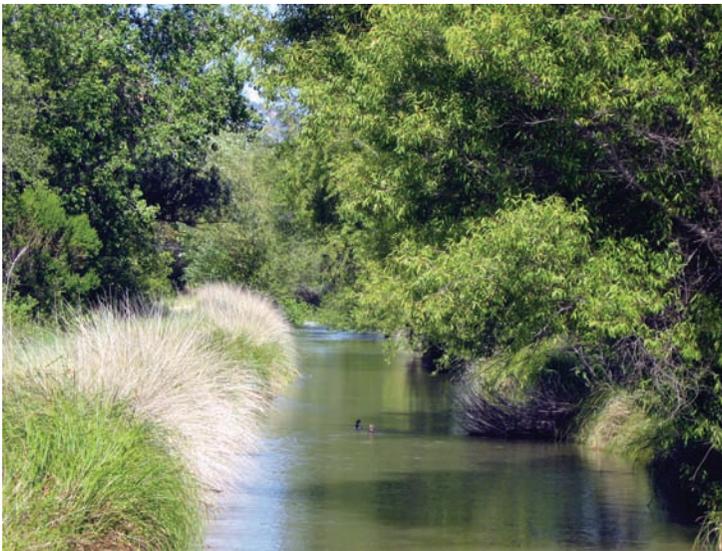


Photo by Yolo RCD

## PONDS FOR WILDLIFE

Ponds can be one of the easiest and most rewarding semi-natural habitats to recreate. By applying simple principles to pond design and location, most ponds can quickly develop into useful wildlife habitats.



### TO MAKE HIGH QUALITY WILDLIFE PONDS:

1. Locate new ponds in areas where they are at least risk from pollution;
2. Where possible, create ponds near to existing wetland areas (streams, ditches etc.), taking care not to damage existing habitats;
3. Above all, design ponds with natural wetlands in mind: create pond mosaics and wetland complexes rather than single isolated water bodies;
4. To maximize the number of plant and animal species in a pond, vary the main factors influencing community type at any pond site (e.g. water depth, constancy of water level, size);
5. Ensure that time is given to pond management during critical early colonizing stages.
6. Get help from the Natural Resources Conservation Service and the Yolo County RCD.
7. Manage the weeds that will show up around the pond. Bare banks or lawn are not good for wildlife. Instead plant native species of riparian plants to out-compete undesirable and/or invasive plants (see plant list on page 40)
8. Consider planting native fish, such as Sacramento perch. Natives can provide fun fishing and mosquito control, and are preferable to non-native fish, which eat native amphibians.
9. Make the pond drainable or semi-permanent to control bullfrogs (which are a non-native, invasive species that eat native amphibians)
10. Expect it to take time. Pond creation requires time for plants and animals to become established, and often needs adaptive management as natural processes take hold.

Where carefully planned and located, new ponds can make a significant contribution to maintaining or enhancing aquatic communities in an area.

## LANDSCAPING FOR WILDLIFE

As you create habitat on your property, be sure to consider the type of plant you use. Native plants are adapted to your soil and climate, which means in our area they are likely to be drought tolerant, a good thing for our hot summers. The environmental reasons for gardening with native plants are positive and compelling. Native plant gardens:

- Increase biodiversity
- Provide habitat for a wide variety of creatures such as birds and butterflies
- Provide a home for many native plants that are becoming increasingly rare in the wild
- Conserve water
- Reduce the need for chemical inputs such as pesticides, herbicides and fertilizers

Native plant gardening has practical rewards, too: less work and lots of beauty! Once native plants are established, they require very little maintenance, though some plants may need pruning to mimic how animals graze plants in the wild.

Native plants are also adapted to the environmental events of their home area, such as fire and flooding. If your home's landscape is primarily native, the landscape will have a better chance of withstanding flooding events.



### RESOURCES FOR CREATING AND MAINTAINING WILDLIFE HABITAT:

Yolo County Resource Conservation District  
(530) 662-2037

[www.yolorcd.org](http://www.yolorcd.org)

Natural Resources Conservation Service Woodland Field Office  
(530) 662-2037 x 113

[www.nrcs.usda.gov](http://www.nrcs.usda.gov)

California Native Plant Society

[www.cnps.org/cnps/grownative/habitat/](http://www.cnps.org/cnps/grownative/habitat/)

City of Woodland

[www.cityofwoodland.org](http://www.cityofwoodland.org) (outdoor water conservation page)

Regional Water Authority "Rules of Thumb for Water-Wise Gardening"

[www.rwaw20.org/rwa/files/directory-RulesofThumb.pdf](http://www.rwaw20.org/rwa/files/directory-RulesofThumb.pdf)

Biggs Wildlife Pond

[biggsnestpond.net](http://biggsnestpond.net)

Backyard Gardener- Wildlife Ponds

[www.backyardgardener.com/article/green/821.htm](http://www.backyardgardener.com/article/green/821.htm)

eNature-Native Gardening and Invasive Plant Guides

[www.enature.com/native\\_invasive](http://www.enature.com/native_invasive)



Photo by USDA NRCS

### EROSION CONTROL RESOURCES

Yolo Resource Conservation District

530-662-2037 x 117

[www.yolorcd.org](http://www.yolorcd.org)

Natural Resources Conservation Service

530-662-2037 x 113

[www.nrcs.usda.gov](http://www.nrcs.usda.gov)

CA Department of Fish and Game

Special Permits and License Information (916) 928-5846

[www.dfg.ca.gov/licensing/specialpermits/specialpermits.html](http://www.dfg.ca.gov/licensing/specialpermits/specialpermits.html)

## EROSION CONTROL AND SLOPE STABILIZATION

**M**any hillside lots have been cleared of the natural vegetation that once stabilized the slope. To control erosion, use native plants and grasses with elaborate root systems of varying depths (see page 40 for a list of recommended creek-friendly plants). Deep root systems allow native plants to survive in severe drought conditions as well as hold the soil in place.

Slopes and stream banks need special attention. Slopes that are too steep (greater than a 3:1 “run to rise” ratio) inhibit plant growth, creating a bare bank that will further erode and grow more steep. Before undertaking any grading or re-grading, you will need to check with the County Planning and Public Works Department to find out what permits and restrictions you will need. Bio-degradable netting and erosion control blankets can help to stabilize slopes and prevent sediment pollution in creeks and waterways.

Before undertaking bank modification, consider taking advantage of free engineering consultation and design through the Natural Resource Conservation Service (NRCS) and permitting assistance from the Yolo County RCD. Projects conducted under the Yolo County RCD Permit Coordination Program are automatically conforming with the CA Department of Fish and Game, the US Army Corps of Engineers, the State Water Resources Control Board and the US Fish and Wildlife Service.

Keep in mind, that each municipality has regulations that limit the amount of grading and time of year earthwork can take place.

## CREEK CARE

Creeks and rivers are formed, maintained, and altered by the water and sediment they carry. The size of a creek channel is determined by four basic factors: quantity and size of channel bottom material (sediment and gravel), streamflow, and slope. The relationship between these factors can be thought of as a balance between these factors. If one of them changes, one or more of the others must also change. For example, if streamflow increases and the slope of the channel stays the same, then the quantity of sediment being moved and/or sediment size must also increase for the creek to remain in balance. The likely result of this example is that the creek will move larger (and/or more) sediment downstream. This re-balancing will result in a lowering of the creek bed or broadening of the channel as the bed or banks of the creek erode.

Creek bed degradation can also result in a lowering of the shallow groundwater tables. Creeks naturally work toward a balance between sediment and streamflow. They are constantly reacting to natural and human-induced disturbances in the watershed. These disturbances can significantly alter the size and shape of streams by increasing or decreasing stream flow and sediment supply.

If there is a creek running through your property, you have an opportunity as a creek steward to foster the natural processes of the creek as much as possible. Your tasks might be to:

**Protect Creek Habitat & Banks.** Unstable creekbanks can result in property loss, lead to costly bank failures, and add large volumes of fine sediment to the creek. Creeks are complex systems and repair of eroding banks requires specialized expertise and permits from various resource agencies. An NRCS engineer and the Yolo County RCD Permit Coordination Program can assist with this.

**Watch your creekbanks.** Bank failures or areas where vegetation has been damaged or removed, can indicate a need to act to restore your streambank to a healthy condition. The type of action necessary to repair eroding streambanks varies from site to site. You may need to stabilize an eroding bank or to allow the stream more room to move. Streambank work is often complex and requires several types of permits to protect surrounding areas. Contact a qualified resource professional to assist you. The Natural Resources Conservation Service (NRCS) and the RCD Permit Coordination Program can help you get started.

**Maintain flow capacity.** It is the landowner's responsibility to keep creeks clear of downed debris and trash to maintain flows and prevent flooding. The NRCS, RCD and the CA Department of Fish and Game Agency can advise you on the best ways to do this.

**Do not locate structures and storage containers near the creek bank.** Any structure built within reach of floodwaters is subject to damage or loss and can decrease the creek's ability to accommodate flood flows safely. Structures such as storage sheds, patios, and decks require removal

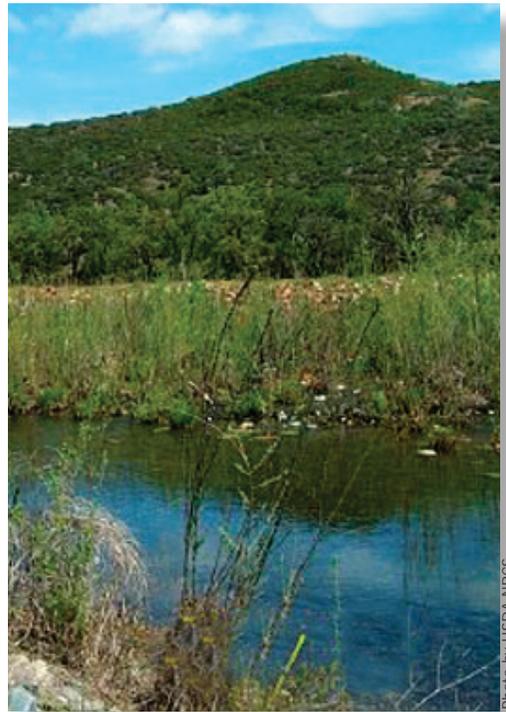


Photo by USDA NRCS

of the creek's natural protective vegetation and often decrease the stability of vulnerable slopes. Construction disturbs the soil and vegetation, adding to sediment buildup in the creek.

**Maintain the area in its natural state; do not construct improvements in the flood zone.**

Some communities have creek setbacks requiring that structures be kept a certain minimum distance from the creek. Maintaining riparian areas along creeks helps prevent erosion and property loss, filters pollutants and allows natural flood plain function. Riparian areas also provide essential wildlife habitat and habitat corridors for wildlife to move within.

**Do not divert water or dam the creek.** Water diversions and dams significantly affect the life of a creek by reducing water flow and can cause flooding on upstream properties.

**Do not take water directly from creeks,** especially during the dry season when natural flows are low. The safest approach to good creek care is to avoid altering the watercourse unless the modification is needed to resolve an existing bank problem. Seek advice from the appropriate local agency and the California Department of Fish and Game.

**Encourage infiltration.** Pave only where necessary. Paved surfaces increase runoff during storms and peak flows in creeks, adding to flooding and erosion problems. Paving also results in lower creek flows during the dry season.

If you are planning to construct walkways, patios, driveways, or stormwater drains, consider alternatives that maximize permeable surface area. This allows more rainwater to soak into the ground on site.



**CREEK MANAGEMENT RESOURCES**

Yolo County Resource Conservation District  
(530) 662-2037  
[www.yolorcd.org](http://www.yolorcd.org)

Yolo County Department of Parks and Resources  
*especially for lands on Cache Creek or below the Capay Dam* (530) 406-4880 or (530) 406-4881  
[www.yolocounty.org/Index.aspx?page=377](http://www.yolocounty.org/Index.aspx?page=377)

Natural Resources Conservation Service  
(530) 662-2037 x 113  
[www.nrcs.usda.gov](http://www.nrcs.usda.gov)

California Department of Fish and Game  
Region 2: Sacramento Valley-Central Sierra Region  
(916) 358-2900  
Special Permits and License Information  
(916) 928-5846  
[www.dfg.ca.gov/licensing/specialpermits/specialpermits.html](http://www.dfg.ca.gov/licensing/specialpermits/specialpermits.html)

Regional Water Quality Control Boards  
Region 5: Central Valley  
(916) 464-3291  
[www.swrcb.ca.gov/regions.html](http://www.swrcb.ca.gov/regions.html)

U.S. Army Corps of Engineers Sacramento Office  
(916) 557-5100  
[www.spk.usace.army.mil](http://www.spk.usace.army.mil)

Photo by Jodie Saiz

## CREEK FRIENDLY PLANTS

For a more thorough listing, see the *Capay Valley Conservation and Restoration Manual*. Information about this and other creek resources is noted on the following page.

Common name	Scientific Name	Low Flow Channel Edge: submerged/very wet most of year	Lower Floodplain: flooded frequently	Upper Floodplain: flooded rarely
<b>Grasses, Sedges and Rushes</b>				
Baltic Rush	<i>Juncus balticus</i>	X	X	
Creeping wildrye	<i>Leymus triticoides</i>	X	X	X
Santa Barbara sedge	<i>Carex barbarae</i>	X	X	
Deer grass	<i>Muhlenbergia rigens</i>		X	X
Meadow barley	<i>Hordeum brachyantherum</i>		X	X
Blue wildrye	<i>Elymus glaucus</i>			X
Salt grass	<i>Distichlis spicata</i>			X
<b>Forbs and Shrubs</b>				
California aster	<i>Aster chilensis</i>			X
Goldenrod	<i>Solidago virgaurea</i>			X
Gum plant	<i>Grindelia camporum</i>			X
Mugwort	<i>Artemisia douglasiana</i>		X	X
Mulefat	<i>Baccharis viminea</i>		X	
Snowberry	<i>Symphoricarpos rivularis</i>		X	
Blue blossom	<i>Ceanothus thyrsiflorus</i>			X
Buckbrush	<i>Ceanothus cuneatus</i>			X
California wild rose	<i>Rosa californica</i>			X
Coyote brush	<i>Baccharis pilularis</i>			X
Elderberry (provides habitat for Valley elderberry longhorn beetle)	<i>Sambucus mexicana</i>			X
Redbud	<i>Cercis occidentalis</i>			X
Toyon	<i>Heteromeles arbutifolia</i>			X
<b>Trees</b>				
Black willow	<i>Salix goodingii</i>		X	
Buttonwillow	<i>Cephalanthus occidentalis</i>		X	
California sycamore	<i>Platanus racemosa</i>		X	X
Fremont cottonwood	<i>Populus fremontii</i>		X	X
Oregon ash	<i>Fraxinus latifolia</i>		X	
Red willow	<i>Salix laevigata</i>		X	
Valley oak	<i>Quercus lobata</i>		X	X
Box elder	<i>Acer negundo 'Californicum'</i>			X
California black walnut	<i>Juglans californica var. hindsii</i>			X
California buckeye	<i>Aesculus californica</i>			X
Coast live oak	<i>Quercus agrifolia</i>			X
Interior live oak	<i>Quercus wislizenii</i>			X
<b>Vines</b>				
California grape	<i>Vitis californica</i>		X	X
Dutchman's pipevine	<i>Aristolochia californica</i>		X	X
Western clematis	<i>Clematis ligusticifolia</i>		X	

## CREEK CARE RESOURCES

Creek Care Guide for Residents and Businesses, National Park Service  
[www.nps.gov/pwro/rtca/page1.htm](http://www.nps.gov/pwro/rtca/page1.htm)

Caring for Creeks in Napa County, Napa Resource Conservation District  
[www.napawatersheds.org/docManager/13411/Creek%20Care%20FINAL.pdf](http://www.napawatersheds.org/docManager/13411/Creek%20Care%20FINAL.pdf)

Capay Valley Conservation and Restoration Manual  
[www.yolorcd.org](http://www.yolorcd.org)



## CONSTRUCTION

By taking advantage of natural sunlight and wind conditions, as well as using less toxic materials, green buildings strive to work with their local environment, instead of against it. Water and energy saving alternatives such as low-flow toilets, energy efficient lights and appliances, and smart heating/cooling systems help keep power and water bills down. And, choosing green building materials such as steel framing can eliminate the need for toxic termite treatments.

### GREEN CONSTRUCTION AND REMODELING

- If you want to go green with your building project, a good resource to check out is Santa Monica's Residential Green Building Guide at [greenbuildings.santa-monica.org](http://greenbuildings.santa-monica.org).
- The City of Austin, Texas has developed a green building sourcebook that provides installation guidelines, estimated costs, potential uses and schematic diagrams. The sourcebook is available on-line at [www.greenbuilder.com](http://www.greenbuilder.com).
- Building Green publishes the GreenSpec Directory which provides up-to-date information on green building materials and products. Contact them at (802) 257-7300 or visit their website at [www.buildinggreen.com](http://www.buildinggreen.com) to purchase the Directory or receive their newsletter.
- Energy-saving building materials and appliances can be found on the web at [www.energy-efficient-products.com](http://www.energy-efficient-products.com) and [www.ebuild.com](http://www.ebuild.com).

"Green" building also strives to minimize the amount of pollution and waste created during construction. This means using the least amount of raw materials, purchasing the least-toxic materials, and keeping all waste on-site until properly disposed of at a landfill or recycling center. Keeping construction waste on-site is also required by law. See the City or County stormwater ordinance that applies to you, or contact your local stormwater manager to find out more about regulations that may pertain to your project. Always research candidates thoroughly before hiring a contractor to find someone who knows and follows all regulations concerning construction runoff. Even a "small" remodel can contribute a large amount of gravel, dirt and hazardous materials to watershed drainage without proper management.

### REMODELING: ENCOUNTERING HAZARDOUS MATERIALS

Keep in mind that asbestos and lead compounds are found in the construction materials of many homes built before the late 1970's. These materials can be hazardous to your health if not managed properly.

It is very important that only licensed and certified contractors manage asbestos and lead removal services. Contact the California State Contractor's License Board at (800) 321-2752 to find a licensed contractor. For a list of contractors certified to manage lead, contact the California Department of Health Services at [cdph.ca.gov/programs/CLPPB/Pages/LRCCertList.aspx](http://cdph.ca.gov/programs/CLPPB/Pages/LRCCertList.aspx). For general information about lead, contact the National Lead Information Center at (800) 424-5323 or [www.epa.gov/lead/pubs/nlic.htm](http://www.epa.gov/lead/pubs/nlic.htm).

#### RESOURCES FOR LEAD REMOVAL

To find a Lead Removal and Abatement Contractor:  
[www.homeblue.com/environmental-1-lead-testing.htm](http://www.homeblue.com/environmental-1-lead-testing.htm)

## RESOURCES FOR LIVING OFF THE GRID:

All Electric Solar  
(530) 671-6702  
Aztec Solar Inc.  
[www.AztecSolar.com](http://www.AztecSolar.com)  
Constant Energy Source  
(530) 681-1128  
Enrg LLC  
(530) 753-3125  
Ganesh Works  
[ganeshworks.com](http://ganeshworks.com)  
Greiner Solar Energy  
(530) 753-1784  
REC Solar  
(916) 922-7657  
Robert's Solar  
(707) 678-2058  
SOLAReCITY Electric  
[solarecityelectric.com](http://solarecityelectric.com)  
SPG Solar Inc.  
[www.spgsolar.com](http://www.spgsolar.com)  
Sierra Solar Systems  
(888) 667-6527  
Sierra Pacific Solar  
(530) 756-0261  
Werner & Son's  
(530)661-7442



Photo by Ianya Meyer

## LIVING OFF THE GRID

In our modern lives we depend heavily on service providers and their systems for many of our essential resources. For most of us, a power company delivers electricity and natural gas to our homes. Water comes to those who live in towns through an elaborate pipe system, and exits those houses to enter a municipal wastewater treatment system. Phone service is wired into homes from a vast network of landlines. For a long time, this connectivity to the “grid” of municipal and large corporate utilities was considered to be the best civilized society could offer.

Today there are many households who for various reasons are not hooked up to one or more parts of the utility “grid.” In 2006, USA Today reported that in America there were “some 180,000 families living off-grid, a figure that has jumped 33% a year for a decade”. Some landowners prefer to be independent of the grid, and so rely on solar or wind generated power, cell phones and independent propane or natural gas contracts. These people live partially or wholly “off the grid.”

The expanding field of solar technology has made it more easy and affordable for the average homeowner to generate all or part of their energy needs on their own property. Advances in passive solar design allow homes to require less energy to run from the start. If reducing your ties to the grid interests you, research what is feasible and affordable and what county code allows. Determine what your goals are, what incentives (state rebates, etc.) exist and what challenges (initial cost, location) you’ll face. Keep in mind it will be up to you to maintain and repair your utility systems, so assess your own tolerances for maintenance and potential inconvenience when problems arise.

## FIRE SAFETY AND FUEL CONTROL

California's Mediterranean climate means wet winters and long dry summers. In part due to this climate pattern, California's natural history includes a long relationship with wildfire. Rural residents in particular have to be aware of the threat of wildfires and should take measures to reduce risk to their property.

When landscaping, be aware that all plants, even succulents, can generate dead, flammable material ("fuel"). When dried out from drought or extreme heat, some plants ignite more quickly than others. Examples are eucalyptus, pines, rosemary and the larger species of California sagebrush. Plants with tiny leaves are considered more easily ignitable, because the leaves dry out more easily. Tiny leafed plants include chamise, Australian tea trees, and Peruvian (misnamed "California") pepper trees. Areas with thick, dry leaf litter (e.g. groves of Acacia) are also easily ignitable. In a high-intensity fire, *every* plant will burn when it is dried out by the heat of the fire – including lawn and succulents. It is very important to properly plan and maintain your garden to protect your home.

- Trim trees so branches are six feet from the ground and 10 feet from your chimney. Remove branches overhanging your roof.
- Call your utility company for help with trees near power lines. Never trim these yourself.
- Remove any dead trees that pose a fire threat. Leave those not in close proximity to your home to provide habitat for wildlife
- Mow non-native annual grasses regularly in the spring and summer before weeds go to seed. Mowers are designed to cut green grass, never cut dry grass with a mower. You can also mow native grasses around your home to reduce fire risks.
- Cut weeds and dead grasses six inches or shorter.
- Always work early in the morning and make sure your power tools have spark arresters to prevent equipment-caused fires.
- Create a fire defensible native landscape.
- Maintain defensible space by cleaning up plant litter regularly and watering properly.
- No matter where you live, always install smoke alarms on every level of your home. Test them monthly and change the batteries at least once a year. Consider installing long-life smoke alarms.

CALFIRE has prepared a series of fire safety informational materials for homeowners, entitled "Fire Safe – Inside and Out." To obtain a copy of the booklet, brochure, checklist or video, contact the CALFIRE or your nearest CALFIRE station or administrative office.

### FIRE SAFETY RESOURCES:

CALFIRE  
(916) 653-5123  
[www.fire.ca.gov](http://www.fire.ca.gov)  
California Fire Safe Council  
[www.firesafecouncil.org](http://www.firesafecouncil.org)  
Creating a defensible landscape  
[www.cnpssd.org/fire/ReduceFireRisk.pdf](http://www.cnpssd.org/fire/ReduceFireRisk.pdf)  
Fire-resistant native plants  
[www.theodrepayne.org/plants/fire\\_resistant.htm](http://www.theodrepayne.org/plants/fire_resistant.htm)



Photo by NRCS

## LANDSCAPING AND WEED CONTROL



Photo by Kathleen Robbins

Landscaping can turn a plain house into your beautiful home. Unfortunately, many landscaping techniques require large amounts of water, pesticides and fertilizers, increase the spread of invasive plants, and create an unnecessary fire hazard. When planning your garden, make it easy on yourself AND the watershed.

### WATER-WISE LANDSCAPING

- To reduce the use of water, fertilizer and pesticide around your home, landscape with attractive and low-maintenance native plants. Native plants are more tolerant of drought conditions and are better suited to the local soils and can provide habitat for native wildlife.
- Minimize irrigation by grouping plants according to watering needs and consider installing a timer and/or weather-controlled drip irrigation system to help prevent over-watering.
- Contact the Yolo RCD or your local nursery to help identify the type of soil in your yard. Adjust your irrigation and/or plant selection to match or amend the soil for optimal water efficiency.
- Mulch your plants to keep the roots cool and prevent water evaporation. You can make your own compost with your yard and kitchen waste (see page 29) or buy it locally at nurseries and garden stores.
- Need help creating your water-wise garden? Contact Yolo County RCD, visit Solano RCD's Watershed Friendly Demonstration Garden (call 707-678-1655 x 3 for hours) or visit Las Virgenes Municipal Water District's website ([www.LVMWD.com](http://www.LVMWD.com)) for ideas for integrating native species into your landscape.

#### LANDSCAPING RESOURCES:

California Native Plant Society, Sacramento Valley Chapter

[www.sacvalleycnps.org](http://www.sacvalleycnps.org)

Yolo County Resource Conservation District  
(530) 662-2037

[www.yolorcd.org](http://www.yolorcd.org)

UC Davis Arboretum (regular plant sales)  
(530) 752-4880

[arboretum.ucdavis.edu](http://arboretum.ucdavis.edu)

### NON-NATIVE PLANTS AND WEED CONTROL

- Non-native plant species displace native plants, reduce biodiversity and eliminate wildlife habitat. They are harmful to agriculture, cost taxpayers a lot of money for eradication programs, and can increase fire losses and damages. They can also be very unsightly.
- While some plants spend their whole life as weeds, others start out as horticultural plants in our homes and gardens. When these plants "escape" into the wild, they can displace native plants and disrupt ecosystems. Choose the plants you intend to use near wild lands and riparian areas very carefully.
- The Yolo County Weed Management Area (YCWMA) addresses invasive plant concerns and

encourages responsible management of natural resources. For more information about the YCWMA, weed identification, and weed control information call the Yolo RCD at (530) 662-2037.

- If you can, replace non-native plants with native alternatives. For example:

EXOTIC INVASIVE	NATIVE, WATERSHED FRIENDLY ALTERNATIVES
pampas grass ( <i>Cortaderia selloana</i> ) fountain grass ( <i>Pennisetum setaceum</i> )	native deer grass ( <i>Muhlenbergia rigens</i> ) spiny rush ( <i>Juncus acutus</i> ) giant wild rye ( <i>Leymus condensatus</i> )
Ngaio tree ( <i>Myoporum laetum</i> )	native coffeeberry ( <i>Rhamnus californica</i> ) hollyleaf cherry ( <i>Prunus ilicifolia</i> ) toyon ( <i>Heteromeles arbutifolia</i> ) California wax-myrtle ( <i>Myrica californica</i> )
periwinkle ( <i>Vinca major</i> ) Cape ivy ( <i>Delairea odorata</i> )	wild grape ( <i>Vitis girdiana</i> ) snowberry ( <i>Symphoricarpos mollis</i> ) California blackberry ( <i>Rubus ursinus</i> )
iceplant ( <i>Delosperma sutherlandii</i> )	yarrow ( <i>Achillea sp</i> )

- Visit [www.plantright.org](http://www.plantright.org) for lists of invasive plants of particular concern in Yolo County and recommended alternatives.
- Contact the Yolo County Weed Management Area for advice about particularly noxious weeds to look out for, and advice about the best management practices to control and eradicate them.



*Centaurea solstitialis*, Yellow Starthistle (photo by CAL-IPC)

*Giant Reed, Yellow Starthistle, and Perennial Pepperweed are all noxious weeds in Yolo County.*



*Lepidium latifolium*, Perennial Pepperweed (Photo by CAL-IPC)



*Arundo donax*, Giant Reed (photo by NRCS)

#### WEED CONTROL RESOURCES:

University of California Weed Research & Information Center

[wric.ucdavis.edu](http://wric.ucdavis.edu)

UC IPM Weed Photo Gallery

[www.ipm.ucdavis.edu/PMG/weeds\\_common.html](http://www.ipm.ucdavis.edu/PMG/weeds_common.html)

California Noxious Weed Control Projects Inventory  
[endeavor.des.ucdavis.edu/weeds](http://endeavor.des.ucdavis.edu/weeds)

California Exotic Pest Plant Council  
[groups.ucanr.org/ceppc/Useful\\_Links](http://groups.ucanr.org/ceppc/Useful_Links)

Internet Resources on Weeds  
[www.ippc.orst.edu/cicp/gateway/weed.htm](http://www.ippc.orst.edu/cicp/gateway/weed.htm)

## WELL MAINTENANCE

Properly constructed private water supply systems require little routine maintenance. These simple steps will help protect your system and investment:

- Always use licensed or certified water well drillers and pump installers when a well is constructed, a pump is installed or the system is serviced.
- An annual well maintenance check, including a bacterial test, is recommended. Any source of drinking water should be checked any time there is a change in taste, odor or appearance, or anytime a water supply system is serviced.
- Keep hazardous chemicals, such as paint, fertilizer, pesticides, and motor oil far away from your well.
- Periodically check the well cover or well cap on top of the casing (well) to ensure it is in good repair.
- Always maintain proper separation between your well and buildings, waste systems or chemical storage facilities. Your professional contractor knows the rules.
- Don't allow back-siphonage. When mixing pesticides, fertilizers or other chemicals, don't put the hose inside the tank or container.
- When landscaping, keep the top of your well at least one foot above the ground. Slope the ground away from your well for proper drainage.
- Take care in working or mowing around your well. A damaged casing could jeopardize the sanitary protection of your well. Don't pile snow, leaves, or other materials around your well.
- Keep your well records in a safe place. These include the construction report, as well as annual water well system maintenance and water testing results.
- Be aware of changes in your well, the area around your well, or the water it provides.
- When your well has come to the end of its serviceable life (usually more than 20 years), have your qualified water well contractor properly decommission your well after constructing your new system.
- Cap old wellheads so they don't become a potential injection site for contaminants into groundwater.

### WELL DRILLING AND MAINTENANCE RESOURCES:

Yolo County Environmental Health Department  
Ground Water Protection Program  
[www.yolocounty.org/Index.aspx?page=93](http://www.yolocounty.org/Index.aspx?page=93)

Cooper Drilling Co.  
(530) 476-3380

Eaton Drilling Co.  
(530) 662-6795

LGS Drilling  
(530) 681-2012

Roadrunner Drilling & Pump  
(530) 406-8559

Sullivan Drilling  
(530) 865-0737

Vaca Pump Service  
(707) 448-2131

Valley Pump & Motor Works Inc.  
(530) 673-2930

Vannucci Technologies  
(530) 219-2641

Workshams Pump Co.  
(707) 448-5904



Photo by Tanya Meyer

## TREE CARE

Trees contribute to watershed health in a variety of ways. They can provide wildlife habitat, offset CO2 emissions through storing carbon, and reduce air pollution by absorbing pollutants. The shade of trees improves outdoor space for people and can also keep buildings and cars cooler in hot weather and extend the life of road surface. Trees can also help reduce flooding and improve water quality by intercepting rainfall and removing pollutants from storm water runoff.

**Trees add aesthetic value to the places we live, and often increase our property values.**



Photo by Jodie Saliz

## MAINTENANCE

Tree maintenance can have a long-term impact on your property as well as the rest of the watershed. Before trimming, remember that leaves provide the food for the tree; removing them causes stress. Here are a few tips:

- As a general rule, pruning of major limbs (never more than 15% per year) should be done in the rainy season to ensure proper hydration of the tree and to avoid disturbing nesting birds and squirrels. Remind your tree trimmer to work around active nests. Because different tree species not only react differently to pruning but also vary in the timing and technique required, it's best to consult a certified arborist before a major pruning to keep your tree healthy.
- When looking to remove a tree or for questions, contact your local tree commission, city forester, or arborist.
- Allow some leaf litter to accumulate rather than sending it to the landfill. Fallen leaves and branches provide nutrients to the soil and surrounding ecosystem.
- Compost excess leaf litter and redistribute throughout your garden. Caution: do not compost litter from allelopathic (plants that chemically suppress the growth of other plants) trees, e.g. black walnut, tree of heaven and sorghum.
- During construction projects, ask your professional landscaper for a "tree protection plan" or alternatives to tree removal when landscaping private property, especially when excavation is to be done within the drip line of a tree's crown or the canopy line of a grove. Damage to roots causes significant stress to trees and weakens their structure.

When shopping for tree work, consider these points: look for ISA (International Society of Arboriculture) Certified Arborists and/or Certified Tree Workers (the standing of any ISA certified worker can be confirmed by looking up their ISA ID#); look for Registered Consulting Arborists by the American Society of Consulting Arborists; confirm that they have a Contractors License through the Contractors State License Board.

When choosing a tree for planting look for a master tree list of species approved or recommended by your city.

### TREE MAINTENANCE

#### RESOURCES:

City of Davis Urban Forestry Program

[cityofdavis.org/pgs/trees/index.cfm](http://cityofdavis.org/pgs/trees/index.cfm)

Westley Schroeder, Senior Tree Trimmer, City of Woodland (530) 661-5962

Arbor Day Foundation  
[www.arborday.org](http://www.arborday.org)

Western Chapter International Society of Arboriculture (866) 785-8960  
[www.wcisa.net](http://www.wcisa.net)

American Society of Consulting Arborists  
[www.asca-consultants.org](http://www.asca-consultants.org)

Sacramento Tree Foundation (916) 924-8960  
[www.sactree.com](http://www.sactree.com)

USDA Forest Service PSW Center for Urban Forestry Research  
[www.fs.fed.us/psw/programs/cufr](http://www.fs.fed.us/psw/programs/cufr)

# INTEGRATED PEST MANAGEMENT

Originally developed for agriculture, Integrated Pest Management (IPM) is a way to reduce your use of chemicals in your landscape while also managing pest insects and diseases. An IPM system is designed around six basic components:

- **Acceptable pest levels:** The emphasis is on control, not eradication. IPM holds that wiping out an entire pest population is often impossible, and the attempt can be more costly, environmentally unsafe, and sometimes even counterproductive. It is better to decide what constitutes acceptable pest levels, and apply controls if those levels are exceeded.
- **Preventive cultural practices:** Selecting plant varieties best for local growing conditions, and maintaining healthy crops, is the first line of defense.
- **Monitoring:** Regular observation is the cornerstone of IPM. Visual inspection, insect traps, and other measurement methods are used to monitor pest levels. Record-keeping is essential, as is a thorough knowledge of the behavior and reproductive cycles of target pests.
- **Mechanical controls:** Should a pest reach an unacceptable level, mechanical methods are the first options to consider. They include simple hand-picking, erecting insect barriers, using traps, vacuuming, and tillage to disrupt breeding.
- **Biological controls:** Natural biological processes and materials can provide control, with minimal environmental impact, and often at low cost. The main focus here is on promoting beneficial insects that eat target pests; an effective way to recruit beneficial insects is to create insectary hedgerows or install host plants that provide good year-round habitat for the desired beneficial insects.
- **Chemical controls:** Considered as an IPM last resort, synthetic pesticides may be used when

other controls fail or are deemed unlikely to prove effective. Biological insecticides, derived from plants or naturally occurring microorganisms (eg: bacillus thuringiensis often called Bt), also fit in this category.

IPM is suitable for home pest management and can reduce human and environmental exposure to hazardous chemicals.



Photo by Earth-Kind



Photo by Earth-Kind



Photo by USDA NRCS

## IPM RESOURCES

UC Davis IPM online  
[www.ipm.ucdavis.edu/PMG/crops-agriculture.html](http://www.ipm.ucdavis.edu/PMG/crops-agriculture.html)  
The Safer Pest Control Project  
[www.spcpweb.org/resources](http://www.spcpweb.org/resources)  
UC Cooperative Extension IPM Specialist  
Rachael Freeman-Long  
(530) 666-8143

## MOSQUITO CONTROL

The Sacramento-Yolo Mosquito and Vector Control District (SYMVCD) is a special district responsible for mosquito abatement throughout the incorporated and unincorporated areas of Yolo County. SYMVCD is charged with controlling all mosquitoes which may bring disease or become a nuisance to humans and domestic animals. SYMVCD uses an Integrated Pest Management approach which focuses on preventative efforts such as biological and physical control, yet chemical control is integrated with other measures as necessary. Control technicians routinely inspect sources within Sacramento and Yolo counties.



Photo by Center for Disease Control

Mosquitoes go through four different life stages: egg, larva, pupa and adult. Only the female mosquito bites. She needs the protein obtained from blood in order to complete egg development.

The SYMVCD contends with an extremely diversified range of aquatic habitats and temperature regimes. Of the 23 species of mosquitoes known to occur within the SYMVCD boundaries, 6 are important either as disease vectors (i.e., capable of transmitting disease) or pests.

### HOW YOU CAN CONTROL MOSQUITOES ON YOUR PROPERTY

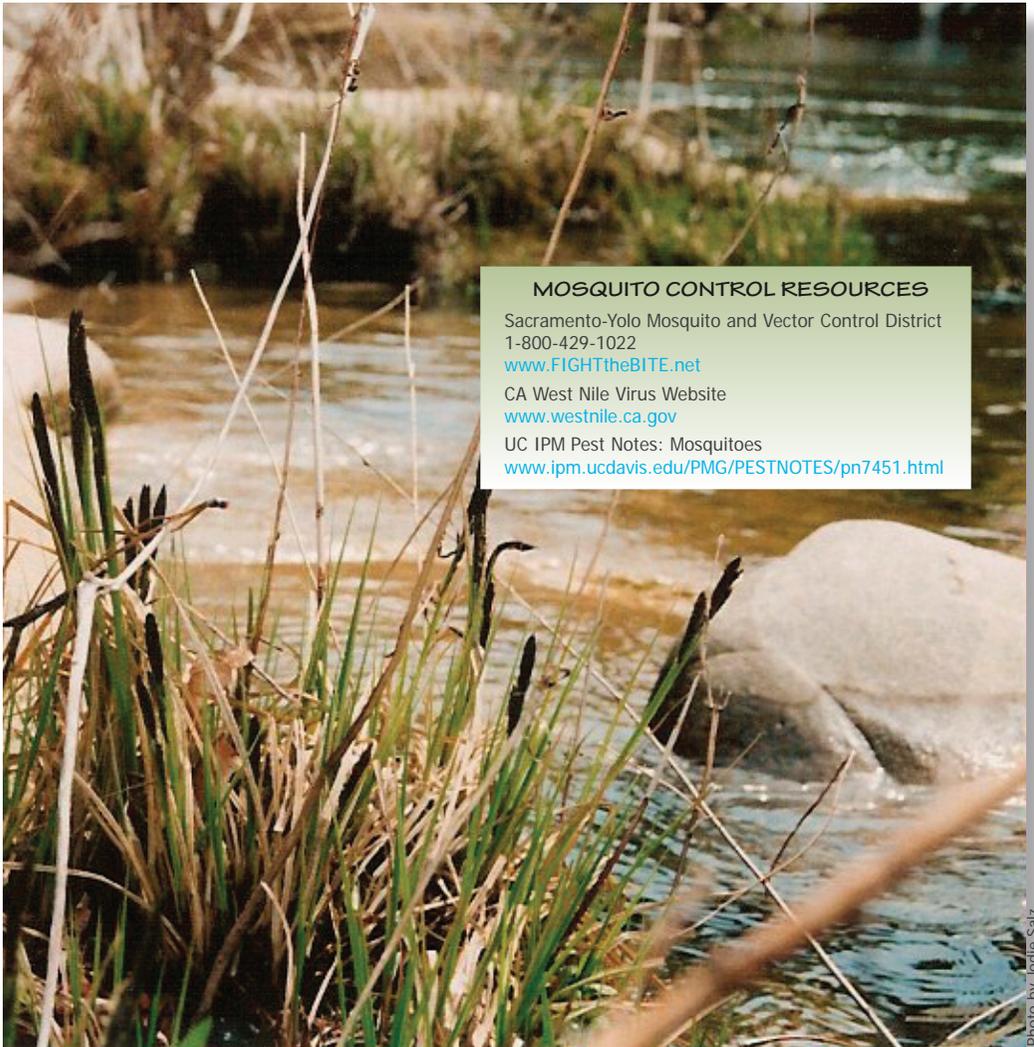
- Drain standing water that may produce mosquitoes (e.g. drain any water-holder containers including garden pots, tires, gutters, wading pools, wheelbarrows, birdbaths, pool covers)
- Dispose of tin cans, plastic containers, ceramic pots or similar water-holding containers that have collected on your property.
- Pay special attention to discarded tires. Stagnant water in tires is where mosquitoes may breed.
- During the warmer end of the rainy season, when moisture accumulates in gutters frequently, place mosquito dunks in each gutter. The active ingredient, *Bacillus thuringiensis* subspecies *israelensis* (called Bti), kills mosquito and black fly larvae for at least 30 days. Dunks float and slowly release a long-term biological mosquito larvicide, which kills larvae before they hatch into adults. Dunks will not affect fish, plants, people or wildlife and alternative wetting and drying does not reduce their effectiveness.
- Drill holes in the bottom of recycling containers left outdoors.
- Have clogged roof gutters cleaned every year, particularly if the leaves from surrounding trees have a tendency to plug up the drains. Roof gutters can produce millions of mosquitoes each season.
- Turn over plastic wading pools when not in use. Stagnant water in a wading pool becomes a place for mosquitoes to breed.
- Turn over wheelbarrows and don't let water stagnate in birdbaths. Both provide breeding habitats for mosquitoes.
- Aerate ornamental pools or stock them with fish. Water gardens can become major mosquito producers if they are allowed to stagnate. Clean and chlorinate swimming pools not in use. A swimming pool left untended by a family on vacation for a month can produce enough mosquitoes to result in neighborhood-wide problems. Mosquitoes can breed in the water that collects on pool covers, so these need to be regularly emptied.

It is not necessary to limit outdoor activities unless local officials advise you otherwise. However, you can and should try to reduce your risk of being bitten by mosquitoes.

**In addition to reducing stagnant water in your yard, you can follow these additional steps to protect yourself, especially**

**IF WEST NILE VIRUS HAS BEEN FOUND IN YOUR AREA:**

- Drain standing water that may produce mosquitoes
- Remain indoors during dawn and dusk when mosquito are most active
- Dress in long sleeves and pants when outdoors to avoid mosquito bites
- Use an effective insect repellent such as DEET, Picaridin, Oil of Citronella or IR3535. Remember to follow label directions!
- Make sure doors and windows are screened and that all screens are in good repair.
- Call the SYMVCD for any questions, concerns or assistance.



**MOSQUITO CONTROL RESOURCES**  
Sacramento-Yolo Mosquito and Vector Control District  
1-800-429-1022  
[www.FIGHTtheBITE.net](http://www.FIGHTtheBITE.net)  
CA West Nile Virus Website  
[www.westnile.ca.gov](http://www.westnile.ca.gov)  
UC IPM Pest Notes: Mosquitoes  
[www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7451.html](http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7451.html)

Photo by Jodie Saiz

## HOME CARE

Caring for the part of the watershed we live in isn't just something we need to work on outside— what we do inside our homes and businesses matters, too. The products we use to furnish and decorate our homes impact us locally, and also have impacts in the places they were made. The chemicals we use to clean our homes, to wash our clothes and to care for and pamper our bodies all impact the watershed. The big things, like carpet and furniture, need to be considered both for chemical content and durability (what does it put into the environment, now and when it is discarded or replaced?) Chemical home care and personal care products enter directly into the water system through our drains; spray products contain ingredients that escape into the atmosphere each time we use them. Paper towels, synthetic dusting cloths and one-use cleaning implements all represent an addition to the waste stream, and none of them are recyclable.



Photo by Jodie Saliz

### TIPS TO GO GREEN

1. Choose carpeting, rugs, window treatments and other textiles made from natural fibers, such as cotton or wool, which are untreated and free of toxins, such as pesticides or chemical cleaners.
2. Ask for flooring products made from rapidly renewable resources, such as bamboo. Bamboo is one of the fastest growing plants in the world, requiring no replanting and little fertilization or pesticides.
3. Select solid woods harvested from sustainably-managed forests, when possible, for furniture or cabinetry, rather than pressed woods or composites that may contain formaldehyde or other chemicals that may be toxic and hazardous to your health.
4. Eliminate waste by choosing products that are biodegradable or recyclable. Consider the “life-cycle” of furnishings and accessories before purchasing: Are they made of materials that can be reused or recycled when the item eventually wears out or is no longer needed?
5. Recycle packing and shipping materials from any newly purchased items.
6. Safely dispose of paint cans and other containers with contents that could potentially contaminate the ground or water supply at hazardous waste disposal events in your community (safe disposal information is found on page 31).

7. Use cloth towels instead of paper. Purchase durable cleaning tools instead of single-use items.
8. Buy natural ingredient cleaning products. Natural cleaners are effective and free of chemicals, phosphates, artificial colors, fragrance, and harsh fumes.
9. Buy concentrated products which save on packaging, are less to recycle, and can save you money
10. Make your own cleaning products with common household ingredients such as vinegar, baking soda and lemon juice. Check out: [organizedhome.com/pantry-recipes-homemade-cleaning-products](http://organizedhome.com/pantry-recipes-homemade-cleaning-products)
11. Make sure the products you buy come in recyclable containers, and be sure to recycle the containers when the product is gone.

## CLEANING UP

In home care as in other areas, less is almost always more. Using simple homemade cleaning solutions is usually gentler on the environment, both in the direct impact of actual materials, and in the reduction of packaging (recyclable or not) from store-bought products. Homemade products are almost always gentler on your wallet, as well.

If you use a septic system for waste disposal, you'll need to be especially careful about the chemicals you use in your home. Chlorine can significantly impact system performance, as can other cleaning chemicals. It is important to carefully read the labels of all household chemicals, and to use them only according to the directions. More is not better in most cases, and the excess chemicals are hard on the environment, impacting water quality and downstream plants and animals. Cleaning products can also have immediate impacts on us, from noxious fumes that stress our lungs, to caustic liquids that dry or burn our skin. They're usually hard on your belongings as well, shortening the usable life span of an item.



Photo by Jodie Salz

### WATERSHED FRIENDLY HOME CARE RESOURCES:

National Geographic Green Guide

[www.thegreenguide.com](http://www.thegreenguide.com)

Low Impact Living

[www.lowimpactliving.com](http://www.lowimpactliving.com)

Eartheasy Sustainable Living

[www.eartheasy.com/live\\_nontoxic\\_solutions.htm](http://www.eartheasy.com/live_nontoxic_solutions.htm)

## FLOOD AWARENESS AND PREPARATION

The lowlands of Yolo County, with a vast network of year-round and seasonal creeks and drainage canals, is a natural flood plain. Dealing with large amounts of water is something that is a part of living here. In some parts of the county, this means regular flooding, property damage and risk of life.

No person or organization can absolutely prevent flooding, especially in very wet years or in times of extremely heavy rainfall. People can mitigate for flooding and its consequences, lessening damages and threats to life and property.

Living in flood prone areas is a constant learning experience. No two years are ever the same, and escaping serious flooding one year is no guarantee you will be so lucky a second time.

What you can do to be better prepared:

- Develop a solid understanding of the systems that impact local and regional flooding, implementing land management practices and home design to reduce your flooding risks, and
- Pay attention to local weather service information so you can be proactive rather than reactive when the rains come.

### FLOODING FACTS:

- About 30 percent of all flood claims come from outside of the 100-year floodplain.
- Just an inch of water can cause costly damages to your property.
- A car and its passengers can be easily carried away by just two feet of water.
- New land development can increase flood risk, especially if the construction changes natural runoff flowpaths and reduces the amount of surface area that can absorb water, either by paving it or covering it with buildings. This means that construction upstream can have big impacts down in the flats.
- We don't know as much about flooding and weather as you might think: 100-year floods don't always happen just once every hundred years, and many of our flood maps are not current or accurate. Storms in recent years have approached or exceeded the 100-year flood level in Yolo County, resulting in some of the wettest rainy seasons on record, with some of the largest storm and flooding events in memory.

### WHAT'S YOUR RISK?

Your chances of being flooded are much greater than many other risks you face. Living in a 100-year floodplain, you have a 1 in 4 chance of being flooded during the period of a 30-year mortgage, a risk 27 times greater than your risk of fire.

### BEFORE THERE'S A FLOOD

If you live in a flood zone, you'll need to take some precautions to assure the safety of your family and friends. The following steps should be planned and prepared in advance, and practiced, so that everyone in your family or home will know what to do when an emergency strikes.

- Keep emergency numbers by all phones.
- Know safe routes from your home or office to high ground.

- Develop and practice an evacuation plan. Your plan should consider anyone with special needs or movement limitations. During times when flooding is a possibility, make sure everyone in your house or office knows about the plan and is prepared to follow it.
- Keep your car's gas tank full.
- Store emergency supplies at home, at work and in your car in easily accessible locations. These supplies should allow you to be self-sufficient for 72 hours and should be stored in a sturdy, easy-to-carry container such as a backpack, duffle bag, or covered trash container.

## DURING THE FLOOD

Before rising waters reach you there are still things you can do to protect yourself and property. You should do the following, as time permits, during a flood as the waters are rising:

- Evacuate if it appears necessary, or if you are so instructed.
- Lock your home when you leave.
- Turn off all utilities at the main power switch and close the main gas valve.
- Move all valuables to upper floors of your home or to higher elevations.
- Move your vehicles to high ground.
- Move outdoor objects indoors or to a more secure place.



Photo by Yolo RCD

Stay informed: listen to your battery-powered radio for news and instructions, watch your local cable network television stations or use the internet to get updated weather information.

## AFTER THE FLOOD

Even after flood waters begin to recede, it's still dangerous. Keep yourself and your family safe by remaining cautious and alert.

### Returning to your house:

- Listen to a radio or television in your safe location. Do not try to return home until authorities tell you it is safe to do so.
- Ensure access to your house is safe, and that there are no downed power lines, road wash-outs or debris posing a travel danger
- Complete a perimeter check of your house and note any structural or other damage. If serious, contact the local building inspector or structural engineer before entering any buildings.
- Stay out of buildings if floodwaters remain around or in the building.
- When re-entering your home do not use any device with an open flame, such as matches or lighters, because gas may be trapped inside. Use flashlights. Do not turn on electrical switches.
- If you smell volatile fumes such as gasoline, natural gas or propane, leave the property im-

mediately and call you local gas company or fire department.

- Do not attempt to turn on your power until an electrician has inspected your system and determined that it is safe.
- Ensure that all heating systems and large appliances have been thoroughly inspected by a qualified technician before using them again.
- Protect your family's health by cleaning up all flood damage as soon as possible. Clean up spilled medicines, bleaches, gasoline, and other flammable liquids immediately. Any medicines and food that came into contact with flood waters may be contaminated and need to be thrown out.
- Do not return to your home to live until you determine that the building is structurally safe, completely clean and free of molds and bacteria. Until then stay with friends, relatives or at a temporary shelter for flood victims.
- If your well has been flooded, assume that the water in your home is not safe to drink. You will probably have to disinfect your well before using it again. Check with your local environmental health officer to find out how to do this. If you are on a public water system, listen to your local media for news from the public health authorities about whether or not your water is safe to drink. Boil questionable water for a minimum of five minutes before drinking to be sure its fully disinfected.
- Do not use your septic system until you are confident that the floodwaters have dropped below the distribution trenches in your septic tank.
- Have flood drains and sump pumps flushed and disinfected.

#### FLOOD AWARENESS & PREPARATION RESOURCES:

Yolo County FEMA Flood Map  
[www.yolocounty.org/Index.aspx?page=577](http://www.yolocounty.org/Index.aspx?page=577)  
Yolo County Office of Emergency Services:  
[www.yolocounty.org/Index.aspx?page=601](http://www.yolocounty.org/Index.aspx?page=601)  
(530) 406-4930  
Yolo County Sheriff  
Emergency only: 9-1-1 or (530) 666-6612  
West Sacramento Flood Control  
[www.westsacfloodingprotection.com/FAQs.htm](http://www.westsacfloodingprotection.com/FAQs.htm)  
Floodsafe Yolo  
[www.ycfwcwd.org/yolofloodsafe.html](http://www.ycfwcwd.org/yolofloodsafe.html)  
Ready for the Flood-  
*An Awareness and Preparedness Manual*  
[www.scwa2.com/floodmanual.html](http://www.scwa2.com/floodmanual.html)  
Disaster Preparedness  
[www.disastercenter.com](http://www.disastercenter.com)  
Federal Alliance for Safe Homes (FLASH)  
[www.flash.org](http://www.flash.org)  
Yolo County road closure information [www.yolocounty.org/Index.aspx?page=831](http://www.yolocounty.org/Index.aspx?page=831)  
National Weather Service  
[www.crh.noaa.gov](http://www.crh.noaa.gov)  
Weather Channel  
[www.weather.com](http://www.weather.com)



Photo by Yolo RCD

# WATERSHED RESOURCES

## QUICK REFERENCE

### **California Department of Fish and Game**

Region 2: Sacramento Valley-Central Sierra  
Region

(916) 358-2900

Special Permits and License Information  
(916) 928-5846

[www.dfg.ca.gov/licensing/specialpermits/specialpermits.html](http://www.dfg.ca.gov/licensing/specialpermits/specialpermits.html)

### **California Department of Forestry**

Sacramento Office

(916) 653-5123

[www.fire.ca.gov](http://www.fire.ca.gov)

### **California Fire Safe Council**

[www.firesafecouncil.org](http://www.firesafecouncil.org)

### **California Native Plant Society, Sacramento Valley Chapter**

[www.sacvalleycnps.org](http://www.sacvalleycnps.org)

### **California West Nile Virus Website**

[www.westnile.ca.gov](http://www.westnile.ca.gov)

### **City of Davis Recyclopeda**

[www.city.davis.ca.us/pw/recycle/atoz.cfm](http://www.city.davis.ca.us/pw/recycle/atoz.cfm)

### **Regional Water Quality Control Board**

Region 5: Central Valley

(916) 464-3291

[www.waterboards.ca.gov](http://www.waterboards.ca.gov)

### **Sacramento-Yolo Mosquito and Vector Control District**

(800) 429-1022

[www.FIGHTtheBITE.net](http://www.FIGHTtheBITE.net)

### **Yolo County City Police Departments**

#### **Non-emergency numbers (in an emergency call 911)**

Davis (530) 747-5400

West Sacramento (916) 617-4905

Winters (530) 795-2261

Woodland (530) 662-5377

### **Yolo County Farm Bureau Education Corporation (YCFBEC) Irrigated Lands Program**

Denise Sagara, Yolo County Farm Bureau

(530) 662-6316

[www.yolofarmbureau.org](http://www.yolofarmbureau.org)



Photo by USDA NRCS



Photo by USDA NRCS



Photo by Tanya Meyer

## Yolo County Flood Control and Water Conservation District

(530) 662-0265

[www.ycfcwcd.org](http://www.ycfcwcd.org)

## Yolo County Planning and Public Works Departments

Davis Public Works (530) 757-5686 [www.city.davis.ca.us/pw](http://www.city.davis.ca.us/pw)

Community Development (530) 757-5610

West Sacramento Public Works (916) 617-4850 [www.cityofwestsacramento.org](http://www.cityofwestsacramento.org)

Community Development (916) 617-4645

Winters Public Works (530) 795-4910 [www.cityofwinters.org](http://www.cityofwinters.org)

Community Development (530) 795-4910

Woodland Public Works (530) 661-5962 [www.ci.woodland.ca.us](http://www.ci.woodland.ca.us)

Community Development (530) 661-5820

## Yolo County Department of Agriculture

(530) 666-8140

[www.yolocounty.org/Index.aspx?page=504](http://www.yolocounty.org/Index.aspx?page=504)

## Yolo County Office of Emergency Services

(530) 406-4930

[www.yolocounty.org/Index.aspx?page=716](http://www.yolocounty.org/Index.aspx?page=716)

## Yolo County Parks and Resources

(530) 406-4880

[www.yolocounty.org/Index.aspx?page=377](http://www.yolocounty.org/Index.aspx?page=377)

## Yolo County Recycling Information

[www.yolocounty.org/Index.aspx?page=819](http://www.yolocounty.org/Index.aspx?page=819)

## Yolo County Resource Conservation District and the Natural Resources Conservation Service

### Woodland Field Office

(530) 662-2037

[www.yolorcd.org](http://www.yolorcd.org)

[www.nrcs.usda.gov](http://www.nrcs.usda.gov)

## Yolo County Sheriff

9-1-1 or (530) 666-6612

(530) 666-8282 (non emergency deputy response)

[www.yolosheriffs.com](http://www.yolosheriffs.com)

## Yolo County Transportation District

[www.yolobus.com](http://www.yolobus.com)



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Photo by Phil Hogan



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Please provide us feedback on this publication:

Yolo County Resource Conservation District (530) 662-2037

**Yolo County Weed Management Area**

[www.yolorcd.org/programs/yolo-county-weed-management-area](http://www.yolorcd.org/programs/yolo-county-weed-management-area)

**Yolo-Solano Air Quality Management District**

(530) 757-3650 or (800) 287-3650

**Ag Burn Line**

(800) 246-3660 or (530) 757-3660

To register an air quality complaint:

(800) 287-3650 or (530) 757-3650

To report smoking vehicles

1-800-END-SMOG or #SMOG (on a cell phone)

[www.ysaqmd.org](http://www.ysaqmd.org)

**Yolo Hiker**

[www.yolohiker.org](http://www.yolohiker.org)

**Yolo Land Trust**

(530) 662-1110

[www.yololandtrust.org](http://www.yololandtrust.org)

**University of California Cooperative Extension**

(530) 666-8143

[ceyolo.ucdavis.edu](http://ceyolo.ucdavis.edu)

**U.S. Army Corps of Engineers**

Sacramento Office

(916) 557-5100

[www.spk.usace.army.mil](http://www.spk.usace.army.mil)



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Photo by Yolo RCD



Photo by Yolo RCD

## ABOUT US

The Yolo County Resource Conservation District (Yolo RCD) is a special district recognized under state law. The mission of the Yolo RCD is to protect, improve, and sustain the natural resources of Yolo County. Our Board of Directors and staff are dedicated to developing resource stewardship solutions for local landowners based on the best available science and local needs. Our projects reflect a cooperative effort with our partner agency, the USDA Natural Resource Conservation Service (NRCS), landowners, agencies, and agricultural and conservation groups.

This directory is a work in progress, please contact us to contribute new resource information, corrections and ideas for improvement.

Development and printing of this document was funded by:  
California Department of Conservation,  
CALFED Ecosystem Restoration Program/California Department of Fish and Game,  
Yolo County Resource Conservation District



**YOLO COUNTY**  
**RCD**

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