

GUIDEBOOK FOR LIVING IN AND PROTECTING San Juan Creek Watershed



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SAN JUAN CREEK WATERSHED

SOUTH ORANGE COUNTY, CALIFORNIA

VISION

San Juan Creek Watershed area is a precious environment in South Orange County that provides parks, bicycle trails, horse trails, clean air, water and wildlife habitat.

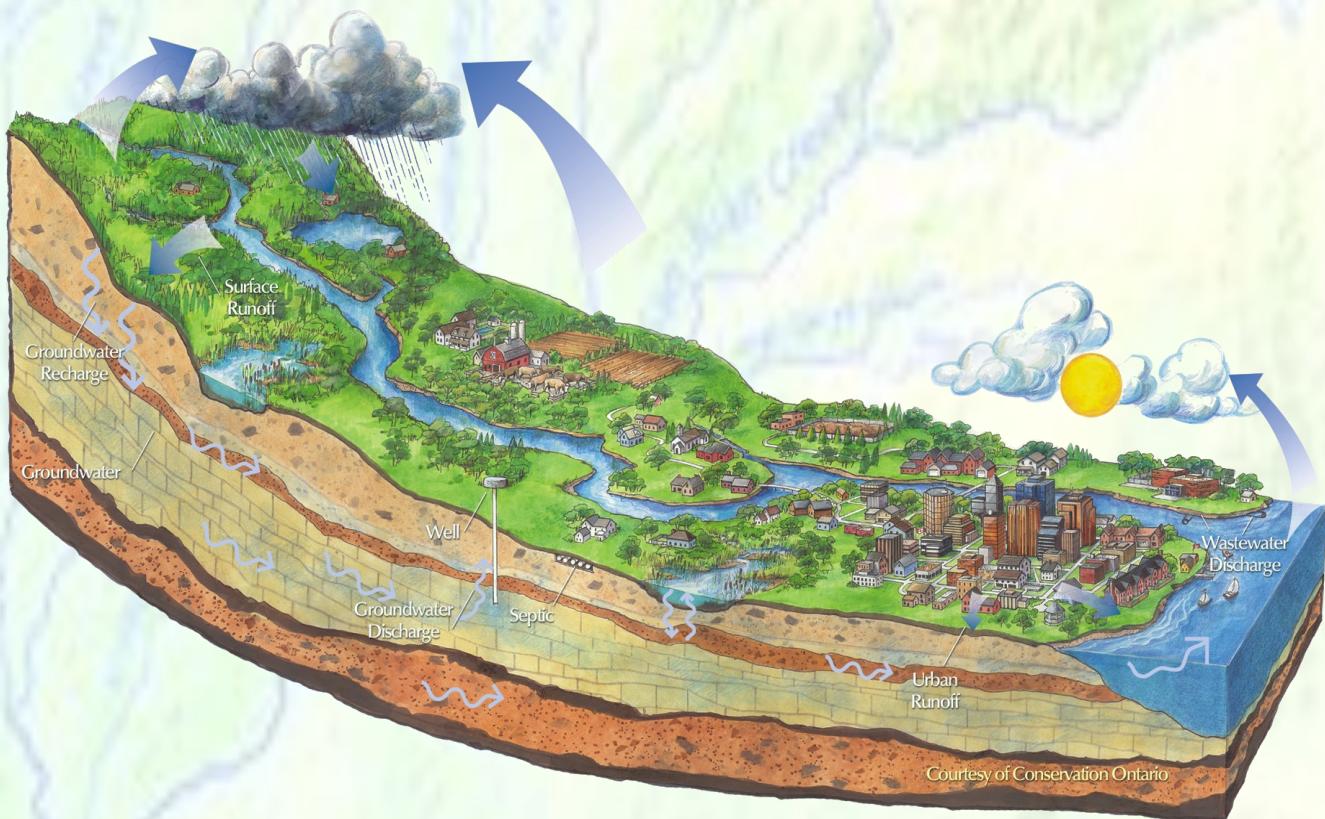
With your support and commitment, this vision can become a reality.



WHAT IS A WATERSHED?

A watershed is an area of land from which all rainfall and surface runoff drains to a common point. All land is part of a watershed. As rainwater, melting snow from the Santa Ana mountains, and runoff flow downhill, they can carry sediment and other materials into our streams, lakes, and groundwater.

The San Juan Creek Watershed covers 160 square miles and includes portions of the cities of Dana Point, Laguna Hills, Laguna Niguel, Mission Viejo, Rancho Santa Margarita, San Juan Capistrano, and Unincorporated County Area. Its main tributary, San Juan Creek, originates in the Santa Ana Mountains district of the Cleveland National Forest in the easternmost part of Orange County. The Arroyo Trabuco and Oso Creek are smaller tributaries.



San Juan Creek Watershed



Section 1

OUR WATERSHED

The Earth's surface acts as an amazing sponge and filter, allowing moisture, minerals, and organic materials to be used and reused by all life. In developing our cities and communities, we have changed the underlying conditions of the land on which they are built. Where once water, air, and nutrients could enter the soil and circulate freely, we now have increasingly larger areas of hard surfaces that rapidly concentrate rain, surface runoff, and pollutants. We have also introduced plants and animals into areas where they were not previously found, thus dramatically changing the make-up of our region's biological communities. Learning to work with the natural cycles that have sustained the earth will help ensure that food, clean air, water, and beautiful green open space will be available to future generations.

*“To keep every cog and wheel is the
first precaution of intelligent tinkering.”*

- Aldo Leopold

Section 1 OUR WATERSHED

Environmental Challenges

Stormwater Pollution

Trash, bacteria, pesticides, fertilizers and oil wash into streets and storm drains and can pollute our streams, groundwater, creeks, and ocean. Fertilizers and other non-natural sources of nutrients such as grass clippings stimulate the growth of plants, disrupt local water - and land-based communities of plants, and cause severe impairment of our creeks and the ocean. Each person, simply by changing a few every day habits, can effect positive change across the watershed.



WHAT YOU CAN DO

to reduce stormwater pollution:

- ❖ Monitor automatic sprinkler systems and adjust timing or hardware to prevent runoff. Remember that sprinkler runoff is prohibited and a waste of water.
- ❖ Pick up trash and litter around your yard and home.
- ❖ Sweep rather than hose down driveways.
- ❖ Reduce use of toxic chemicals in and around your home and use only as directed on the label.
- ❖ Dispose of unwanted household hazardous wastes, antifreeze, batteries, oil and paint at official collection stations.
- ❖ Clean up pet waste.
- ❖ Wash your car at a car wash to keep detergents and metals out of the streets.
- ❖ Report illegal dumping and stormwater pollution to your city's storm water hotline.
- ❖ Install irrigation system controls and improve irrigation systems.

COLLECTION CENTERS IN SAN JUAN CREEK WATERSHED

The local HHW Collection Center is located at the Prima Desecha Landfill:

32250 La Pata Avenue
San Juan Capistrano, CA 92675

Exit I-5 at Ortega Highway (SR-74). Go east to La Pata Ave. Turn right and continue to landfill entrance.

For more info: 714-834-6752 and at www.oclandfills.com.

Why clean up after your pet?

Pet waste that is left exposed to the elements eventually gets flushed into the storm drains, channels and creeks and down to the ocean by surface runoff and rain.

Pet waste degrades the environment and water quality by:

- Increasing nitrogen and phosphorus in the water, resulting in excessive algae growth.
- Increasing the amount of bacteria and viruses in the water.
- Making neighborhoods and parks less healthy and enjoyable for all users.



Invasive Plants

Ever since Spanish colonial times, mankind has brought foreign plants, “exotics,” to the New World, sometimes by accident, but more usually as fodder or ornament. In our watershed, many drought-tolerant ornamentals are well-behaved, but some escape our yards and create problems. Once growing in the wild, all of them, however attractive, such as Scotch broom in the mountains and fountain grass on the roadside, crowd out native plants to which our native birds and insects are adapted.

Other plants not only out-compete the natives, but do further damage. Invasive annual grasses grow quickly and dry to tinder, making meadows and scrubland more prone to fire. Eucalyptus grow fast, are brittle, extremely flammable and prone to disease, as are oleanders. Castor-oil plant is poisonous, and tocolate has many irritating burrs.

Possibly the worst invasive in our watershed is Tamarisk tree (also known as Salt Cedar). These water-thirsty foreigners deplete the water table and form monoculture stands where no bird sings. There is a current effort underway to eradicate Arundo from the San Juan Creek watershed.

WHAT YOU CAN DO

to control invasive plants:

- ❖ Get to know the plants that are problematic in your area and avoid using them.
- ❖ Use native plants from your local area.
- ❖ When you see problem exotics for sale in the nurseries, tell them why you want natives instead.



A VERY INVASIVE PLANT. ARUNDO DONAX



PAMPAS GRASS

DID YOU KNOW

The National Parks Conservation Association considers the invasion of national parks by non-native species among the most significant causes of biodiversity loss in parks.

RESOURCE

California Invasive Plant Council, for more information, www.cal-ipc.org

Section 1 OUR WATERSHED

A Watershed Approach

People working together to protect public health and the environment - community by community, watershed by watershed.

*- Carol M. Browner,
Administrator*

*U.S. Environmental Protection Agency
June 1996*

Rainfall travels from the mountains to the ocean. Water, air, plants, people, and animals move freely across political boundaries. Strategies for improving water quality and water supply, increasing flood protection, protecting our creeks, and preserving open space for recreation and wildlife are more effective when pursued collectively over the whole watershed. Cities, agencies, organizations, politicians, and individuals should cross over city lines, joining together with neighbors in their watersheds to work toward these important goals. This watershed-based approach not only promises better and more cost-effective results, it also serves to unit neighborhoods, further enriching our lives.



SAN JUAN CREEK FLOWING THROUGH
SAN JUAN CAPISTRANO

CONTACT

FOR MORE INFORMATION
ON WATERSHEDS:

www.ocwatersheds.com

www.projectcleanwater.org



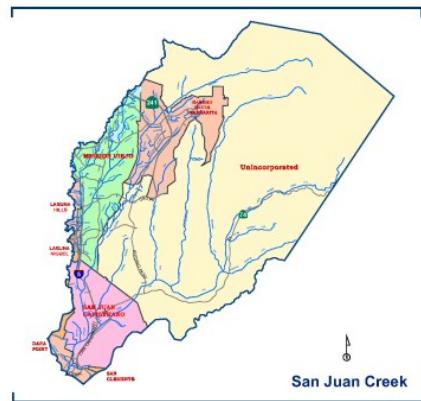
SAN JUAN CREEK WATERSHED AND
DOHENY STATE BEACH

The San Juan Creek Watershed

The Santa Ana Mountains occupy most of the north, east and south parts of the approximately 160-square-mile (347 km²) San Juan Creek watershed, while the San Joaquin Hills and one of their small subranges border the watershed on the southwest, east, and northwest. The three major tributaries, San Juan, Trabuco and Bell Creeks, all originate in the Santa Ana Mountains. There are four main alluvial river valleys in the watershed, drained by San Juan, Trabuco, Oso and Bell Creeks. The San Juan Creek valley occupies the south portion of the watershed, running roughly south before spreading wider near the coast, and running northeast until it turns sharply to the southeast to meet the Pacific Ocean in Dana Point. The Trabuco Creek valley runs west from the north easternmost portion of the watershed, then gradually becomes wider in a section called the *Plano Trabuco* then it joins the smaller, urbanized valley of Oso Creek, which runs primarily south. The combined valley then runs southward to merge with the San Juan Creek valley in San Juan Capistrano. The Bell Creek valley is narrower, beginning a few miles south of Trabuco Canyon, California, and running in an almost perfectly straight southward course to San Juan Creek, which at this point is shortly out of the uppermost reach of its watershed, San Juan Canyon. There are 19 other major creeks in the watershed, including Tijeras Canyon Creek and El Horno Creek, both of which drain parts of the foothills of the Santa Ana Mountains.



LAKE MISSION VIEJO



BOUNDARY MAP



TRABUCO CREEK

Section 1 OUR WATERSHED

San Juan Creek was originally rich in riparian zones and other habitats in both its upper and lower watershed, with wetlands totaling over 300 acres (1.2 km²) historically in the lower reaches, before the rapid population explosion of Orange County began. In 1987, just five bird species were confirmed in the watershed. Steelhead trout have recently been observed in the creek and its tributary, Trabuco Creek. A further reason for the decline of creek habitat and wildlife is mainly due to invasive plant and animal species, including giant reed (*Arundo donax*) and many sport fishes, such as bluegill and striped bass.

Before the 1700s, San Juan Creek and its tributary, Trabuco Creek, were probably unnamed, although it is likely that the creeks had indigenous names that were later lost. The land in the San Juan watershed was mostly Acjachemen Indian territory, which extended from Aliso Creek in the north to San Mateo Creek in the south, a distance of roughly 35 miles (56 km) north-south. Most of the population centered around the outfalls of the two large perennial streams in the area, San Juan and San Mateo Creeks, as well as Trabuco Creek.

The origin of the name of Trabuco Creek (*Spanish: "Blunderbuss Creek", literally*) stems from the Gaspar de Portola expedition of 1769, during which a soldier lost a blunderbuss ("Trabuco"), and the name became associated with the creek after that point.



LAGUNA HILLS SKATE PARK



LAGUNA NIGUEL REGIONAL PARK



RANCHO SANTA MARGARITA

Parks and Public Space

The quality of life for the residents who call the San Juan Creek watershed their home relies upon the presence of beautiful, peaceful parks and abundant open space.

WHAT YOU CAN DO

to keep our parks safe and beautiful:

- ❖ Keep your dogs on a leash and clean up after them.
- ❖ Do not feed the wildlife. Human food is not healthy for birds, squirrels, and other animals.
- ❖ Take only pictures, leave only footprints.
- ❖ No fires in undesignated areas. Follow all other local rules and regulations.

Slow down and take some time to get to know and enjoy the treasures of our region.



SAN JUAN CAPISTRANO OPEN SPACE



CABOT PARK - LAGUNA HILLS



TIJERAS CREEK GOLF CLUB - RANCHO SANTA MARGARITA



Section 2

GREEN LIVING

In southern California's Mediterranean climate we are able to live and enjoy much of our lives outdoors. Many of our homes are designed to take full advantage of this gift, with living areas brought outside into the garden and the outdoors carefully framed for viewing from indoors. In the San Juan Creek watershed, we share a rich cultural diversity and various lifestyles - beach communities, rural agriculture influences, and growing urban communities. What a perfect setting in which to consider how the environment is affected daily by the choices we make in building and maintaining our homes, gardens and style of living.

“Start by doing what’s necessary, then do what’s possible and suddenly you are doing the impossible.”

- St. Francis of Assisi

Section 2 GREEN LIVING

Water Conservation

An effective way to minimize environmental damage and promote a safe and reliable water supply is through conservation. This is particularly important since over half of our drinking water is brought in from distant places such as northern California and the Colorado River. Water conservation efforts add up, reducing our need to import water and increasing the availability and quality of local water resources. Water-conserving appliance and plumbing fixtures save water *and* money.

WHAT YOU CAN DO

to conserve indoor water

- ❖ Replace high volume flush toilets. *Savings:* up to 8,500 gallons per year for the average single-family household.
- ❖ Use efficient toilets (1.28-1.6 gallons per flush)
- ❖ Use a low-flow showerhead. *Savings:* more than 14,600 gallons a year per household.
- ❖ Shorten shower times. Challenge yourself—can you do it in five minutes or less?
- ❖ When it's time for a new washing machine or dishwasher, buy a water-saving model. Water-wise machines use 1/3 less water and half the energy, and require less detergents.
- ❖ Fix all leaky faucets and plumbing joints.
- ❖ Run your dishwasher and clothes washer only when fully loaded.



GROUNDWATER TREATMENT PLANT - SAN JUAN CAPISTRANO

CONTACT

ASK YOUR CITY OR WATER PROVIDER FOR ADDITIONAL CONSERVATION TIPS AND REBATES:

City of San Clemente
www.san-clemente.org

City of San Juan Capistrano
www.sanjuancapistrano.org

El Toro Water District
www.etwd.com

Moulton Niguel Water District
www.mnwd.com

Municipal Water District of Orange County
www.mwdoc.com

Santa Margarita Water District
www.smwd.com

South Coast Water District
www.scwd.org

Outdoor Water Conservation

Our yearly rainfall averages from fifteen to twenty inches but can be as little as eight inches. Most rain falls between October and March with long, hot, dry summers. This amount and seasonal cycle of moisture simply cannot sustain most traditional landscapes and lawns. According to local water agencies, up to 50-60% of residential water use is for outdoor landscaping and pools in the region.



WHAT YOU CAN DO

to conserve outdoor water

- ❖ Create a customized watering schedule at www.bewaterwise.com to maximize water use efficiency and prevent runoff.
- ❖ If runoff is observed, decrease watering times. If plants still need more water, use multiple start times separated by an hour or two.
- ❖ Consider using a weather-based irrigation controller that irrigates according to historic or real-time weather patterns in your neighborhood.
- ❖ During the winter, turn your controller off and water only when winter rains are infrequent.
- ❖ During the hotter and drier seasons, water less frequently and more deeply to encourage age stronger, healthier plants.
- ❖ Check for broken and misaligned sprinkler heads often. This problem causes excessive runoff and landscape failures.
- ❖ Lawns are very thirsty. Use them for functional areas only.
- ❖ Consider using native plants best adapted to the southern California climate.
- ❖ Use drip and low-volume irrigation for garden beds and pots. Group plants with similar water needs.
- ❖ Sweep paths and driveways rather than using a hose.
- ❖ Place mulch and clipping from your own garden around your plants and trees to reduce evaporation and keep the roots cooler.
- ❖ Do not cut your lawn too short - taller grass reduces evaporation.
- ❖ Water between 7 p.m. and 6 a.m. for maximum efficiency.
- ❖ Check with your local water provider for special regulations on watering days and times.



USE DEEP IRRIGATION



SAN JUAN CAPISTRANO CITY HALL - LOW IMPACT DEVELOPMENT PROJECT INCLUDED NATIVE PLANTS AND ARTIFICIAL TURF CUTTING WATERING BACK SIGNIFICANTLY.

Landscaping

Another important way to help the environment and save water is by creating a 'California-friendly' yard. There are many drought-tolerant plants that will help with the latter, but amongst these, California natives from local stock have several advantages.

WHAT YOU CAN DO

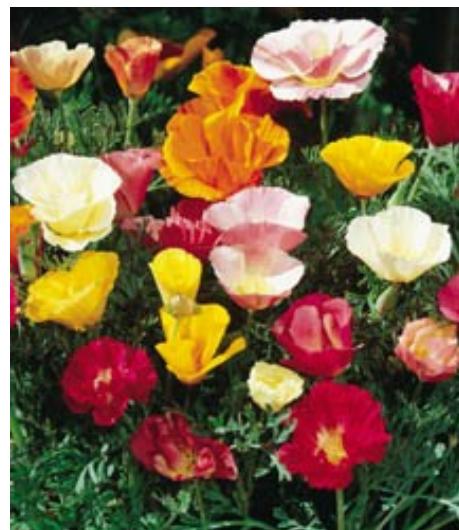
- ❖ Good habitat for native birds, butterflies and other animals - food, water, shelter and nest materials - is best provided by species that have evolved together. Welcome a wide variety of local wildlife by using native plants.
- ❖ Carefully chosen native plants require little or no supplemental water once established. They can co-exist with local pests, so that they seldom need chemical treatments or fertilizer, both of which can pollute. Chemical compounds can endanger your family's health, as well as killing beneficial insects; and birds, and cause stormwater pollution.
- ❖ Native plants require only occasional clean-up pruning to thrive.
- ❖ Gardening with natives may help support declining local communities if the plants elected are grown from local parent stock - specialist nurseries can help you with your selection. California has more rare and threatened species than any other state except Hawaii.
- ❖ See South Coast Water District's online Garden Resource for "Water Smart" Gardening at www.scwd.org/conservation/landscape/garden.asp, where you can take a virtual tour of gardens, view garden gallery for specific projects, such as backyards, raised planters and lawn alternatives, and peruse the plant list and pick your favorites to design your own plant list.



BUTTERFLY FRIENDLY PLANTS



BEE POLLINATING PLANTS



CALIFORNIA POPPIES

Compared to natives, exotic plants (from outside our region) have not evolved with our native birds, butterflies and insects. As a result, they can be devastated by pests or disease or, conversely, spread out of control and reduce native diversity. They do not provide the natural food sources that the native plants do for our local insects, and, if these decline, we lose the building blocks of the local food web, causing in turn the decline of the many local birds which depend on them.



MONKEY FLOWER

Other Things You Can Do:

- ❖ Use permeable surfaces for walkways, patios and driveways that let water soak into the ground; this replenishes the water table and reduce runoff.
- ❖ Reduce green waste by choosing plants that will not grow larger than the amount of space you have for them.
- ❖ Use clippings from your own garden to make mulch or in your own compost pile.



CEANOTHUS



CALIFORNIA BUTTERCUP

Section 2 GREEN LIVING

Trees and Urban Forestry

Why are our cities so hot? The average temperatures in cities can be between 2 and 10 degrees hotter than the surrounding countryside. This phenomenon is called urban heat island effect and is due to the replacement of plants with asphalt, concrete, and building surfaces that absorb and store heat. Planting trees is an effective way to help beautify and cool our cities and homes, reducing our dependence on fossil fuels.



CLEVELAND NATIONAL FOREST

Trees improve air quality by collecting and filtering dust and other pollution particles, absorbing carbon dioxide and releasing oxygen. They improve water quality and reduce flooding by intercepting rainfall and increasing its absorption into the ground.

WHAT YOU CAN DO

- ❖ Do not plant trees or large shrubs on your property within at least 10 feet of your private sewer line. Opt for trees or shrubs without aggressive root systems in that area.
- ❖ Plan ahead carefully when planting trees, considering the mature size of the tree.
- ❖ Allow leaf litter to accumulate and even add more mulch to the surrounding soil, but do not let it pile up against the trunk which can lead to disease.
- ❖ Loosen ties and stakes as soon as you plant, and remove them as soon as possible.
- ❖ Protect the tree trunk from damage by not using weed trimmers around it.
- ❖ Never cut main branches or the central stem back to stubs. This practice, though common in our area, severely stresses and can injure a tree.



Trees improve the health of our watershed. Trees increase groundwater infiltration, filter particulates from the air, shade our homes and provide many other

California Native Plants for Your Home Garden:

COMMON NAME	SCIENTIFIC NAME
Trees	
Western Redbud	<i>Cercis occidntalis</i>
Western Sycamore	<i>Platanus racemosa</i>
Coast Live Oak	<i>Quercus agrifolia</i>
Elderberry	<i>Sambucus Mexicana</i>
California Bay	<i>Umbellularia californica</i>
Mesa Oak	<i>Quercus engelmannii</i>
Shrubs	
Chamise	<i>Artemisia californica</i>
Manzanita	<i>Arctostaphylos species eg. Glaucia</i>
California Lilac	<i>Ceanothus species eg crassifolius</i>
California Sunflowers	<i>Encelia californica or E. farinose</i>
Fremontia, Flannel Bush	<i>Fremontodendron californica</i>
Toyon	<i>Heteromeles arbutifolia</i>
Holly-leaved Cherry	<i>Prunus ilicifolia</i>
Coffeeberry	<i>Rhamnus californica</i>
Lemonadeberry	<i>Rhus integrifolia</i>
Sugar Bush	<i>Rhus ovata</i>
Perennials and Groundcovers	
Manzanita (low)	<i>Arctostaphylos eg. uva-ursi</i>
California Lilac (low)	<i>Ceanothus eg. 'Emerald Carpet'</i>
California Fuchsia	<i>Epilobium canum or Zauschneria californica</i>
Wild Buckwheat	<i>Eriogonum fasciculatum</i>
Coral Bells	<i>Heuchera species</i>
Douglas Iris	<i>Iris douglasiana</i>
Sticky Monkeyflower	<i>Mimulus aurantiacus</i>
Deer Grass	<i>Muhlenbergia rigens</i>
Showy Penstemon	<i>Penstemon spectabilis</i>
California Sages	<i>Salvia apiana or S. mellifera</i>
Wild Grape	<i>Vitis californica</i>
Annuals	
California Poppy	<i>Eschscholzia californica</i>
Arroyo Lupine	<i>Lupinus succulentus</i>
Desert Bells	<i>Phacelia minor</i>
Chia	<i>Salvia columbariae</i>

Note: Most of these thrive in sun and with little supplemental water, though many will look better in summer with monthly irrigation in the early morning. Take care, however, some nursery-bred varieties of these species may need regular garden

Section 2 GREEN LIVING

Fire Safety and Fuel Modification

In Southern California, fires are always a serious concern. If you live in a canyon or on a slope, the risk is even higher, especially if your property is adjacent to natural space. Be sure to follow local fire department clearance regulation and safety practices.

WHAT YOU CAN DO

to reduce fire risk:

- ❖ Keep brush clear around all structures.
- ❖ Keep roof and gutters clear of leaves and plants.
- ❖ Trim trees away from your roof or chimney.
- ❖ Branches should not come with 10' of the house.
- ❖ Space trees and shrubs that are near structures.
- ❖ Prune tall trees to remove branches near the ground.
- ❖ Water plants adequately; water trees and shrubs deeply every 20-30 days during fire season.
- ❖ Stack firewood outside.
- ❖ Plant fire-resistant plants and trees. Plant a deciduous tree, which will lower the energy bill by shading the house in the summer.
- ❖ Stabilize slopes by planting deep-rooted, woody ground covers. Add widely-spaced taller shrubs and trees to maximize slope stability.
- ❖ Do not plant Cypress, Eucalyptus, or Junipers close to the house as they contain oils that can cause fire to spread rapidly.



COMMON YARROW IS FIRE RESISTANT



FRENCH LAVENDER IS FIRE RESISTANT

CONTACT

California Native Plant Society
www.cnps.org

Be Water Wise
www.bewaterwise.com

Las Pilitas Nursery
805-438-5992
www.laspilitas.com

California Native Plants
www.californiagardens.com

Tree of Life Nursery
949-728-0685
www.treeoflifeburssery.com

Air Quality, Automobiles, and Energy

Electricity generation and the use of fossil fuels for transportation are major sources of air pollution in the United States, contributing to smog, acid rain and global warming. One of the single most effective ways to improve air quality and help the environment is to reduce dependence on cars and gasoline. Conservation can make a difference.

WHAT YOU CAN DO

to help clear the air:

- ❖ Carpool, ride the bus, walk, or ride a bike.
- ❖ Make your next vehicle purchase an electric or hybrid car.
- ❖ Combine multiple errands into one trip.
- ❖ Take your children bicycling, walking, or roller-skating to encourage healthy habits and to help them understand the impact their actions have on air quality.
- ❖ Turn off all appliances and light when not in use.
- ❖ Change incandescent bulbs to compact fluorescent.
- ❖ Install energy-efficient (Energy Star) appliances.
- ❖ Switch to solar energy.
- ❖ Plant a tree. Trees lower energy bills by shading the house.
- ❖ Install a whole house fan rather than an air conditioner.
- ❖ Close curtains on sunny windows to reduce heat gain.
- ❖ Minimize use of wood stoves or fire places.
- ❖ Use a dry cleaner that does not use perchlorate.



BIKE RIDING IN DANA POINT



CARPOOL TO SAVE NATURAL RESOURCES

CONTACT

WEBSITES WITH ENERGY SAVING TIPS

SDG&E
www.sdge.com

Flex Your Power
www.flexyourpower.ca.gov

Earth 911
www.earth911.org

US Department of Energy
www.eere.energy.gov

Southern California Edison
www.sce.com

Section 2 GREEN LIVING

WHAT YOU CAN DO

To help when you must drive:

- ❖ Buy an electric, natural gas, or hybrid-electric vehicle to reduce pollution and dependence on oil.
- ❖ Combine multiple errands into a single trip.
- ❖ Maintain your vehicle, especially tire pressure sure. Excessive exhaust is harmful to you and the people around you.
- ❖ When getting gas, do not top off your tank and wait before removing the nozzle. Fuel spillage adds to air pollution.
- ❖ Park in the shade of a building or tree to save gasoline by avoiding the use of the air conditioner to cool down the car.
- ❖ Use your ashtray if you are a smoker. Cigarette butts take up to five years to break down in the ocean and can kill fish, birds, seals, and other marine life.



RANCHO SANTA MARGARITA
TOWN CENTER



MISSION SAN JUAN CAPISTRANO

Green Electricity

Green electricity is derived from clean, renewable energy sources such as solar, wind, biomass, and geothermal. Most electricity in the United States comes from coal, oil, nuclear, large hydroelectric, and natural gas plants. The burning of non-renewable fossil fuels contributes to air quality problems and global warming.

WHAT YOU CAN DO

- ❖ Use less energy.
- ❖ Wear a sweater when it's cool.
- ❖ Contact your utility company to learn about your green energy options.
- ❖ Let your representatives know that renewable energy sources should be a priority.

EDUCATE YOURSELF

Go Green Power
www.gogreenpower.org

Global green USA
www.globalgreen.org

GreenE,
www.green-e.org

California Energy Commission
www.energy.ca.gov

Buying Green

The best way to reduce our impact on the environment is to limit our use of resources. It is helpful to purchase products whose production and use have a reduced impact on the environment. Small changes by many people can make a big difference!

Don't forget to bring your reusable bags when you shop!



SOUTH COAST FARMS IN SAN JUAN CAPISTRANO-

WHAT YOU CAN DO

Purchase products that:

- ❖ Use minimal packaging.
- ❖ Contain recycled material.
- ❖ Contain raw materials derived from renewable sources.
- ❖ Can be reused or recycled.
- ❖ Are produced locally. Shop at local Farmer's Markets.
- ❖ Do not use products that require special disposal.



DANA POINT MEDIAN - US-1



LOCALLY GROWN PRODUCE AT SAN JUAN CAPISTRANO'S FARMER'S MARKET

SAFE ALTERNATIVES TO COMMON HOUSEHOLD CLEANERS

Try:	Instead of:
Borax and water or baking soda	Chlorine bleach
1/2 c. vinegar + 1 qt. water	Glass cleaner
1/2 lemon dipped in borax or baking soda	Abrasive cleaner
1 part lemon juice + 2 parts vegetable oil	Furniture polish
Toothpaste or baking soda polish	Silver polish

SOURCE: American Oceans Campaign

Section 2 GREEN LIVING

Green Construction

When building or remodeling your home, keep sound environmental practices in mind. Green building improves energy efficiency, resource conservation, indoor air quality, and protects the health of your family. In addition to helping the environment, a “green” house can save you money and provide you with a healthier, quieter, and more comfortable home. California has the nation’s first mandatory green building code referred to as CALGreen!



SANTA MARGARITA CATHOLIC HIGH SCHOOLS NEW ATHLETIC FACILITY IN RANCHO SANTA MARGARITA - ON TRACK TO BE FIRST LEED CERTIFIED BUILDING IN RSM AND IN THE ROMAN CATHOLIC

Generally, building greener involves one or more of the following:

- Planning to preserve the natural environment
- Site Development which reduces erosion, minimizes paved surfaces, and protects vegetation.
- Water conservation indoors and outdoors.
- Energy efficiency.
- Using recyclable materials and air conditioning costs.



SURFRIDER FOUNDATION'S GLOBAL HEADQUARTERS IN SAN CLEMENTE WAS AWARDED LEED GOLD CERTIFICATION

Permeable Surfaces

Permeable surfaces such as decomposed (crushed) granite, broken concrete, gravel, mulch and grass or other plants allow water to pass through and soak into the soil beneath, as opposed to running off your yard



MISSION VIEJO LIBRARY INCLUDES GREEN STRATEGIES LIKE NATURAL LIGHT, WATER EFFICIENT IRRIGATION SYSTEM, AND A NATIVE PLANTS.

WHAT YOU CAN DO

to increase sustainability in your home:

- ❖ Add insulation to your home.
- ❖ Use innovative engineered wood products.
- ❖ Use recycled-content building materials whenever possible and ask your contractor to recycle their demolition waste.
- ❖ Use adhesives, paints, and cleaners with low volatile organic compounds (VOC) to reduce indoor air pollution.
- ❖ Use light colored roofing to reduce home heat absorption, or consider new “green roofs.”
- ❖ Use double-glazed windows to save on heating and air conditioning costs.
- ❖ When building a house use the sun. orient your house and plan your landscaping to take advantage off winter sun and summer shade.
- ❖ Use ceiling fans, whole house fans, and attic ventilation to affordably keep your home comfortable.
- ❖ Follow Green Building Codes
- ❖ Choose materials with recycled content.
- ❖ Consider solar energy.
- ❖ Choose raw materials derived from renewable resources.
- ❖ Choose materials that are produced locally.
- ❖ Avoid using products that require special disposal.



INSTALL A WHOLE HOUSE FAN.



EXAMPLE OF A ‘GREEN ROOF’

LEARN MORE

Ecohome Network
www.ecohome.org

National Association of Home Builders
www.nahb.org

Home Builders Association
www.hba.org

Urban Land Institute
www.ulic.org

SDG&E
www.sdge.com

Southern California Edison
www.sce.com



Choose a smart sprinkler controller for your home

- a smart sprinkler controller automatically adjusts irrigation schedules in response to changing weather conditions.
- They are also called “weather-based irrigation controllers.”
- Look for them at your local home improvement store.

For more information log onto www.bewaterwise.com for a listing of manufacturers and websites.



Section 2 GREEN LIVING

Trash and Recycling

Reduce, Reuse, Recycle

As populations grow, cities face increasing problems with waste disposal. Finding ways to dispose of our waste becomes increasingly difficult and expensive. Trash can get washed into the storm drains causing beach and water pollution,



RECYCLE, RECYCLE, RECYCLE.

DID YOU KNOW:

- ❖ Nearly half of the world's annual commercial wood harvest is used to produce paper.
- ❖ Recycling aluminum saves 95% of the energy required to produce it from virgin materials.
- ❖ Over 30% of California's solid waste consists of organic materials. Most of this ends up in a landfill, even though it could be composted.
- ❖ Materials in landfills can take hundreds of years to degrade.
- ❖ Although plastic carries a recycling symbol, very little of it is actually recycled. Discarded plastic washes into the ocean and chokes and kills marine animals including turtles, sea horses, fish, seals, and birds.

LEARN MORE

Orange County residents can properly dispose of these items for free at nearby specified facilities. The HHW facility in San Juan Capistrano (Prima Deshecha) is located at Ortega Hwy and La Pata. Hours of operations are Tuesday through Saturday, 9:00 a.m. – 3:00 p.m., closed Sundays, Mondays, holidays =and rainy days. See www.oclandfills.com for more information.”



BE CREATIVE—REUSE OR RECYCLE PRODUCTS. THESE EMPTY WINE BOTTLES BECOME SOMETHING BEAUTIFUL AND FUNCTIONAL

Household Hazardous Waste includes chemicals (oils, detergents, insecticides, medicines, etc.) that can be used or stored in your kitchen, workshop, garage, garden, or bathroom. It is illegal to dispose of household hazardous waste anywhere but at authorized Household Hazardous Waste (HHW) collection centers. The local cities sponsor several free collection events throughout the year in the San Juan Watershed. Please visit the OC Waste & Recycling website at www.oclandfills.com.

WHAT YOU CAN DO

to help reduce waste and consume less:

- ~ Use reusable bags or re-use plastic bags when shopping.
- ~ Purchase products with minimal packaging material. Buy bulk, when feasible.
- ~ Buy products that contain recycled materials.
- ~ Use both sides of paper. Make your own notepads by saving one-sided scrap paper or mail, cutting in half and securing with a reusable clip.
- ~ Avoid using plastic unless it is something like a sturdy cup or bag that you can re-use.
- ~ Recycle.
- ~ Donate, give away to friends or neighbors or have a garage sale to sell useful unwanted items. Try freecycle and Craig's list for internet resources to get rid of usable items.
- ~ Dispose of hazardous household waste (HHW) properly. Remember that this includes paint, many common cleansers, car fluids, batteries and electronic equipment.
- ~ Use tap water or wash, refill, and reuse water bottles.
- ~ Join a neighborhood clean-up.
- ~ PUT IT IN THE CAN! Pick up a little litter wherever you are, whether in the city or on the trail.

to help reduce green waste:

- ~ "Grasscycle" by leaving grass clippings on your lawn. They provide important nutrients and reduce water loss.
- ~ Choose plants that will be desired size at maturity to minimize pruning.
- ~ Learn to compost and turn your garden and household fruit and vegetable waste in quality soil amendment.
- ~ Chip clippings, pruning, and raked leaves. They all make great mulch.





Section 3

GET INVOLVED

The following is a list of some of the local environmental organizations and exciting things that are happening in and around the San Juan Creek watershed. As a volunteer, you can take direct action to preserve the quality of life for our communities and the natural beauty and benefits of our watershed. Stay aware of what is being planned for the future of your own neighborhood and express your opinions.

“Never doubt that a small group of thoughtful, committed individuals can change the world, indeed it’s the only thing that ever has.”

Volunteer Opportunities

Creek Cleanup Day

Third Saturday of September
San Juan Capistrano - San Juan Creek at Descanso Park

California Coastal Cleanup Day

Third Saturday of September
Throughout Orange County.

Water Awareness Day

In month of May
Check your local water district for details.

Other local public events, check on your city's websites for dates of events.

San Juan Capistrano

www.sanjuancapistrano.org

Dana Point

www.danapoint.org

Laguna Beach

www.lagunabeachcity.net

Laguna Niguel

www.cityoflagunaniguel.org

Mission Viejo

www.cityofmissionviejo.org

San Clemente

www.san-clemente.org

Rancho Santa Margarita

www.cityofrsm.org

County of Orange

egov.ocgov.com/ocgov/

Dana Point Earth Ocean Society

www.danapointearthocean.org

ZeroTrash Dana Point

<http://zerotrust.org/danapoint>

Doheny State Beach, Dana Point

www.dohenystatebeach.org

What is a TMDL?

In our watershed, there are several impaired water bodies that do not meet expected water quality standards. Under the Clean Water Act, the San Diego Regional Water Quality Control Board (RWQCB) has identified Aliso Creek, San Juan Creek, Oso Creek and Dana Point Harbor (among others) as needing water quality improvement. Excessive bacteria is one of the problems affecting these water bodies.

To control the levels of bacteria entering these water bodies, RWQCB has established a new water quality regulation called a Total Maximum Daily Load (TMDL). The TMDL provides an assessment and planning framework for identifying bacteria sources, achieving load reductions, and taking actions that are needed to attain the water quality standards. The TMDL also sets target dates for when the water quality standards must be met and implementation plan to attain it.

For more information on TMDL, visit www.ocwatersheds.com or www.swrcb.ca.gov.



Ten Fun Ways to Enjoy your Watershed

1. **Take a Hike**, a jaunt, a trek, a strut, bike ride, just get out and see, hear and smell the world in your back yard.
2. **Stop and Smell the Native Plants**, the mountains, the hills, the valley, Lupine, Poppies and Sage.
3. **Spend Some Quality Time with your Pet**, leash your dog (bring a bag for pet waste). Ride a horse or a mule! Check out the trails together.
4. **Play in the Garden**, add native plants to your garden - Manzanita, California lilac, Toyon, and Sage. Use biological controls instead of pesticides, conserve water.
5. **Get Down and Dirty**, volunteer with other organizations. Help plant trees, restore habitat, and clean-up your watershed.
6. **Tap into Watershed Consciousness**, the big picture! Remember your street and storm drains lead to the ocean.
7. **Sing, Shout, Get the Word Out!** let friends, family and officials know how you feel about preserving and restoring the San Juan Creek watershed.
8. **Explore your Watershed**, discover the San Juan Creek watershed. All the diverse plant life, animals, and its human communities.
9. **Plan a Bright Future**, participate in local environmental events like Creek Cleanup or Earth Day.
10. **You Can Make A Difference!** embrace our natural resources. Protect habitat and enjoy your watershed.



Section 4

RESOURCES IN YOUR COMMUNITY

WE hope you have found this guide book educational, informative and full of simple actions that you can take to help protect our water supply and preserve our open spaces for your enjoyment and the enjoyment of future generations. We put together the following resources and contacts to help you become more involved in your communities and in the health of your watershed. Remember that your government representatives at all levels - from local to the national - work for you and want to know what you think - express your opinion!

*“Hope is the thing with feathers - that perches
in the soul - and sings the tune without words -
and never stops, at all.”*

- Emily Dickinson

Section 4 RESOURCES IN YOUR COMMUNITIES

Parks and Open Space

PARKS AND OPEN SPACE

Historical Town Center Park

31806 El Camino Real

<http://sanjuancapistrano.org/Index.aspx?page=283>

San Juan Capistrano Open Space

<http://www.sanjuancapistrano.org/Index.aspx?page=80>

The City of Mission Viejo

<http://www.cityofmissionviejo.org/recreation>

Local and Regional Parks

Check the OC Parks website, www.ocparks.com.

Dana Point Parks and Open Space

Check the City of Dana Point website, www.danapoint.org/parks.

Lakes/Recreation Areas

TRAILS

Trails 4 All

<http://www.trails4all.org/T4A/>

EQUESTRIAN TRAILS

San Juan Capistrano Virtual Trails

<http://www.sanjuancapistrano.org/index.aspx?page=1308>

AGRICULTURAL RESOURCES

South Coast Farms Organic Farm

32701 Alipaz

San Juan Capistrano, CA 92675

949-661-9381

<http://www.southcoastfarms.com/>

Section 4 RESOURCES IN YOUR COMMUNITIES

Educational Programs and Workshops

San Juan Capistrano Earth Day Event

a regional public education and outreach effort to inform and educate the public in ways to protect and preserve the environment. Contact Betsy Dubois 949-234-4414

Ecology Center

www.theecologycenter.org

a center whose purpose is to engage their visitors to hands-on activities that teach practical, environmental solutions at the household and community level.

For more information, visit www.theecologycenter.org

Home and Garden

Green Building:

National Association of Home Builders www.nahb.org

Home Builders Association www.hba.org

Urban Land Institute www.ulic.org

Ecohome Network www.ecohome.org

Garden-Native Plants and Invasive Species

California Native Plant Society www.cnps.org

California Invasive Plant Council www.caleppc.org

Metropolitan Water District, Heritage Garden Program www.bewaterwise.com

Tree of Life Nursery www.californianativeplants.com

Air, Water and land Resource Agencies and Organizations

GOVERNMENTAL AGENCIES:

South Coast Air Quality Management District (SCAQMD), Regional air quality or to lodge a pollution complaint, Ph: (800) CUT SMOG (288-7664).
SCAQMD, list of non-toxic cleaners in the area, [www.aqmd.gov]

California EPA, Air Resources Board, Ph: (800) 363-7664 for pollution complaints and to find out about the health effects of indoor and outdoor air pollution. Ph: (916) 322-2990 for info on air quality programs.

US Environmental Protection Agency, Region 9 Office, Potential sources of indoor air pollution and ways to improve indoor air quality, Ph: (415)972-3102, (800) 438-4318.

NON-PROFIT ORGANIZATIONS:

Communities for a Better Environment, www.cbemw.org

Environmental Defense Scorecard, www.scorecard.org

Natural Resources Defense Council, www.nrdc.org

Surfrider Foundation, www.surfrider.org

Orange County Coast keeper, www.coastkeeper.org

National Audubon Society, www.ca.audubon.org

Sierra Club, www.sierraclubcalifornia.org

Websites with Energy Saving Tips:

Flex Your Power, www.flexyourpower.ca.gov

Earth 911, www.earth911.org

US Department of Energy, www.eere.energy.gov

Local Electricity and Gas Providers:

San Diego Gas and Electric, Ph: (800) 411-7343

Southern California Edison, Ph: (800) 655-4555

Southern California Gas Company, Ph: (800) 427-2000

Air, Water and land Resource Agencies and Organizations

Renewable Energy Information

Go Green Power, www.gogreenpower.org

Global Green USA, www.globalgreen.org

GreenE, www.green-e.org

California Energy Commission, www.energy.ca.gov

US Department of Energy, www.eere.energy.gov