

# Conserving Waterways

## Preventing Impacts from Human Activity

*The purpose of this introductory guide is to help landowners who wish to use or develop property which includes a watercourse\* or wetland by providing a brief overview of coordinated planning, required permits and a directory of useful contact information.*

Local homeowners along with developers, planners, and agencies are working together to protect and restore creeks, washes, streams and arroyos\*\*. These waterways are important natural resources that are essential for the quality of our lives. They provide scenic beauty for people to enjoy; supply water, food and homes for native plants and animals; and perform a variety of important services, including:

- filter and clean water
- minimize flooding
- control erosion, and
- percolate water into underground aquifers.

Many waterways have been forever lost where streams are confined to lifeless concrete channels or underground pipelines. Converting waterways to golf courses, roadways, utility corridors, plant nurseries, or farmland destroys the essence of riparian (streamside) habitat. Today we know that it's critical to preserve important habitat and a "green infrastructure" through cities for the healthy functioning of our ecosystems.

Many people are not aware of the activities that can harm waterways and water quality. For example, clearing vegetation or installing fence across a waterway may cause alterations in water flow, resulting in accelerated erosion with increased sedimentation.

The best way to protect a waterway is to avoid disturbance from grading, dumping, vegetation removal, drainage of chlorinated swimming pool water, off-road vehicle intrusion, domesticated animal waste, and more.

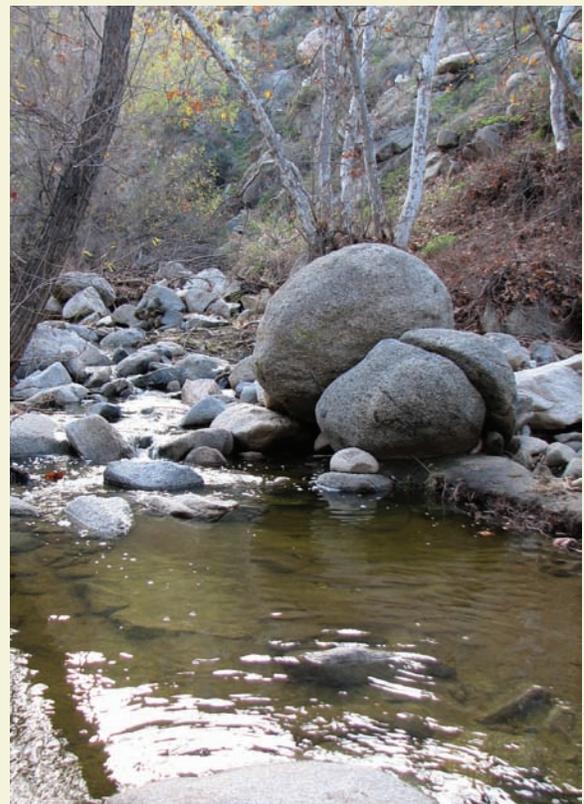


PHOTO BY ARLEE MONTALVO

Riverside County is fortunate to still have many natural watercourses that provide homes, rest stops, and passageways for migrating wildlife. It's estimated that more than one-third of threatened and endangered species live solely in wetland habitats, while one-half use wetlands at some time.

\* Watercourse: an area in which water flows, usually with a defined channel, bed and banks; includes the course of any stream, river, creek, drainage way, gully, ravine or wash, whether permanent or seasonal and whether natural or channelized.

\*\* Arroyo: a water-carved gully, wash, channel or canyon containing a watercourse. Spanish for "brook".

# Steps to Success

## 1. Determine if you have a waterway or wetland on your property.

Often waterways are very apparent, however, not always, especially in dry southern California where many of our waterways do not have visible flowing water year-round. Some creeks and streams continue to flow underground, while others flow for a short time after a storm (ephemeral). These small and often dry washes are also important for native plants and animals. Look where water flows, ponds, or is present even part of the year. If your land includes vegetation which depends on a nearby fresh water source, it is likely that the area is a waterway, wetland or sensitive habitat.

## 2. Contact your city or county planning department (depending on the property location) for guidance through the planning, design and permitting process.

Ask your planner about setbacks (see drawing), grading, zoning, storm water pollution control, and fire safety requirements. There may be deed limitations to consider, so review Covenants, Conditions and Restrictions (C, C and Rs), especially before you purchase property.

If your activities would alter streams or wetlands, you will likely follow the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process. HANS requires that all projects avoid riparian\*, riverine\*\* and vernal pool resources. If 100% avoidance is not feasible, the applicant must submit an analysis supporting a Determination of Biologically Equivalent or Superior Preservation (DBESP). In this case, the County Planning Department will submit the DBESP to the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) for a 60-day review period before the County makes a final determination. There is also an Expedited Review Process (ERP) for single-family home developments.

## 3. Design your project to reduce as many potential environmental impacts as possible.

Through careful design, applicants may be able to avoid impacts to a waterway, and thus reduce permit requirements. For example, a landowner might install a free-spanning bridge, rather than a culvert for a road crossing, thus avoiding earth movement and vegetation removal from a waterway. Streamside vegetation helps control erosion, provides habitat, and removes pollutants from water. Preserving vegetation saves the cost of erosion control and habitat restoration.



Improperly designed home sites do not provide a buffer to protect homes, water quality and arroyo habitat.

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\*Riparian: along a watercourse; the interface between land and a river or stream.

\*\*Riverine: of or pertaining to a river.

If you are planning to develop property, consider using “Low Impact Development” (LID) methods. See the Low Impact Development Manual for Southern California at <http://www.casqa.org/LID/SoCalLID/tabid/218/Default.aspx>.

### Buffers

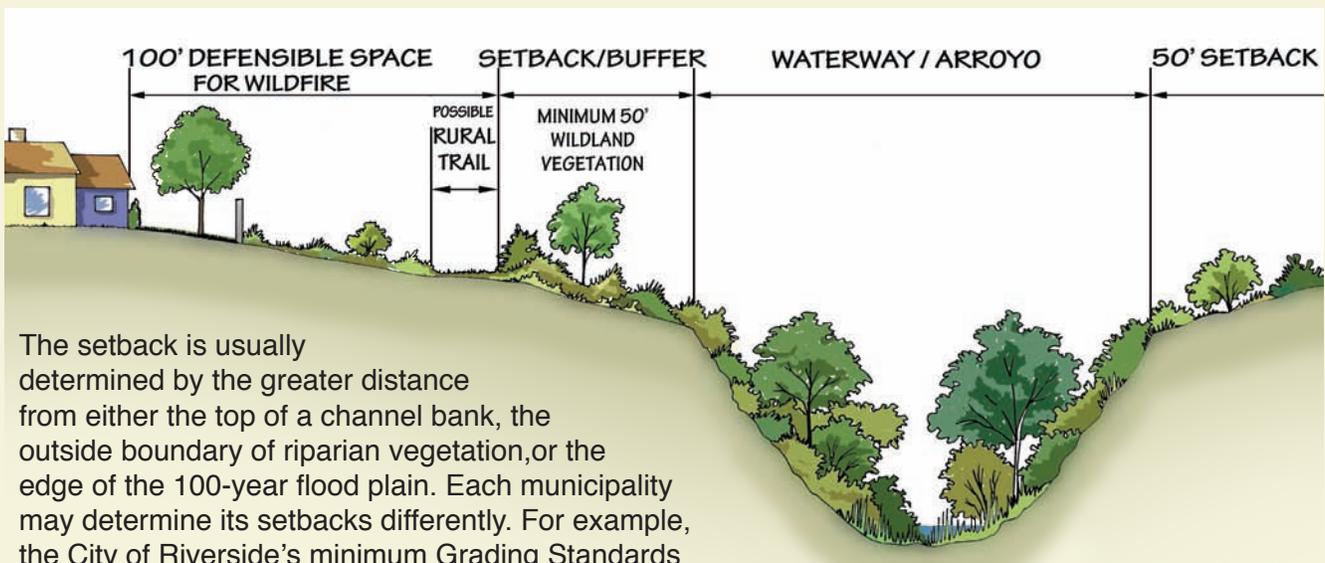
A setback provides a buffer between human activities and wildlife homes plus wildfire hazards. If you plan to build adjacent to a waterway, create a buffer between the watercourse and your *human habitat*, the area for graded pads, structures, and ornamental landscaping. *Wildlife habitat* land includes areas beyond buildings, yards, and defensible space (fire safety zones), generally to be left undisturbed. Wildlife depend on habitat for food, nesting sites, water and sanctuary for survival. A buffer provides necessary habitat, escape-cover during high water, and protects homes from flooding.



Photo by Terry Reeser

Endangered Least Bell's Vireo nestlings.

Local municipalities require that buildings and structures be setback from a watercourse, including septic systems, which could leach polluted water into a waterway.



The setback is usually determined by the greater distance from either the top of a channel bank, the outside boundary of riparian vegetation, or the edge of the 100-year flood plain. Each municipality may determine its setbacks differently. For example, the City of Riverside’s minimum Grading Standards (Municipal Code 17.28) precludes grading or development within 50 feet of the mapped edge of certain waterways and their tributaries. Also, grading of arroyos, “blue line” streams, and for private crossings is not allowed. (<http://www.riversideca.gov/municode/pdf/17/17-28.pdf> )

### Fire Safety

The State of California advises that buildings have 100 feet of “defensible space” for protection from wildfires. To learn more about fuel modification and ways to maintain defensible space without damaging habitat, see the publication *Living on the Edge of the Urban-Wildlands Interface* available from the Riverside-Corona Resource Conservation District or at <http://www.rcrcd.com/Publications/LivingOnTheEdge.pdf>

## 4. Get permits.

Each municipality may handle its process differently, however, each requires permits, such as for land grading. In addition, any activity that would alter streams or wetlands also requires permits by federal and state agencies. Even projects aimed at improving the quality of waterways, such as habitat restoration and stream bank stabilization are subject to permits.

If possible, invite all agencies to the project site at one time. Agency reviewers are sensitive to the concerns of landowners

and will consider alternative designs to try and meet the needs of applicants while still protecting the natural functions of a waterway. Agency representatives will help you determine if and how their agency regulates the watercourse or wetland, as the defined area of the waterway differs among agencies. Factors unique to a project, such as location, biology, project size, timing, and proposed work may trigger permit requirements.

If you need technical assistance with erosion control, such as stream bank stabilization, contact your local Resource Conservation District and/or the Natural Resources Conservation Service.

### Why Permits?

Permits provide a means to balance use and conservation. They allow agencies to monitor activities and to determine how impacts might affect protected wildlife and plant populations.

#### Permits, Plans and Authorizations You May Need

US Army Corps of Engineers	Section 404 Clean Water Act Permit
Regional Water Quality Control Board	Section 401 Water Quality Standards Certification Construction Storm Water Pollution Prevention Plan
California Department of Fish and Game	1602 Streambed Alteration Agreement
US Fish and Wildlife Service	Authorization under the Endangered Species Act
County or City	Grading, Building Permits
California Natural Resources Agency	CEQA Review: Environmental Impact Report or Negative Declaration



Encroachment too close to a waterway compromises its ability to function properly.

## Agency Guide

Use this chart as a guide only. Regulations and laws change, so consult with the agencies and/or with a qualified biologist.

<b>Does your project involve the following?</b>	<b>Agencies you may need to contact regarding a waterway project.</b>				
	City/County Planning Dept. & CEQA Review	US Army Corps of Engineers	Regional Water Quality Control Board	California Department of Fish & Game	US Fish & Wildlife
<i>Involve bank stabilization or bank erosion control?</i>	●	●	●	●	●
<i>Require the removal of trees or riparian (in or along a waterway) vegetation?</i>	●		●	●	●
<i>Affect native plants, wildlife or fisheries?</i>	●		●	●	●
<i>Result in stormwater discharge into a waterway? Require grading permits?</i>	●		●	●	●
<i>Divert or obstruct the natural flow or change the natural bed or bank of a waterway?</i>	●	●	●	●	●
<i>Involve repair, rehabilitation or replacement of any structure or fill adjacent to a waterway?</i>	●	●	●	●	●
<i>Involve utility pipe lines or building any structure adjacent to a waterway?</i>	●	●	●	●	●
<i>Use or remove materials from a streambed (including but not limited to boulders, gravel, sand and wood debris)?</i>	●	●	●	●	●
<i>Involve the addition of any materials, grading or fill near a waterway?</i>	●	●	●	●	●
<i>Require a water well or involve a septic leach field near a waterway?</i>	●		●	●	●
<i>Involve a bridge or culvert which crosses a waterway?</i>	●	●	●	●	●

●=Action will most likely require regulatory compliance. ●=Action may require regulatory compliance.

## Tips

It's a good idea to start the permit process early in planning. Keep detailed records, date your notes and get everything in writing. When in doubt, ask. Moving ahead without the proper permits or without following all the conditions of approval will very likely cost time, money and goodwill. If a project changes after being permitted, the landowner may be required to amend permits. Each permit has an expiration date and associated costs.



PHOTO BY ARLEE MONTALVO

# DIRECTORY

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If your property is located within city limits, contact your city's planning department, otherwise, contact Riverside County Planning Department.

## Riverside County Planning Department

4080 Lemon St., 12th Floor, Riverside, CA 92501  
(951) 955-6097

<http://www.tlma.co.riverside.ca.us/planning/index.html>

### Environmental Programs

<http://www.tlma.co.riverside.ca.us/epd/default.aspx>

### Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process:

<http://www.tlma.co.riverside.ca.us/epd/hans.aspx>

Any waterway that contributes to the function and value of one of Riverside County's Multiple Species Habitat Conservation Plan (MSHCP) areas is subject to the HANS process. A MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan focusing on conservation of species and their associated habitats. It allows Riverside County and its cities to better control land-use decisions, while maintaining biological diversity and addressing the requirements of the state and federal Endangered Species Acts.

MSHCP Section 6.1.2: [http://www.wrc-rca.org/Permit\\_Docs/MSHCP\\_Docs/volume1/Vol1-Sec6.pdf](http://www.wrc-rca.org/Permit_Docs/MSHCP_Docs/volume1/Vol1-Sec6.pdf)

## City of Riverside Planning Department

3900 Main Street, Third Floor, Riverside, CA 92522  
(951) 826-5371 <http://www.riversideca.gov/planning/>

## California Natural Resources Agency / CERES

1416 Ninth Street, Suite 1311, Sacramento, CA 95814  
(916) 322-3485 <http://ceres.ca.gov/>

The California Environmental Quality Act (CEQA) requires state and local agencies to follow a protocol of analysis and public disclosure of potential environmental impacts from development projects. For projects with potentially significant environmental impacts, agencies must identify mitigation measures and alternatives via an Environmental Impact Report (EIR). The lead agency is normally the agency with general governing powers, such as a city or county.

## US Army Corps of Engineers (ACOE)

1451 Research Park Dr., Suite 100, Riverside, CA 92507  
(951) 276-6624 [www.spl.usace.army.mil/regulatory](http://www.spl.usace.army.mil/regulatory)  
Clean Water Act Section 404 Permit

## Regional Water Quality Control Board (RWQCB)

Santa Ana Region,  
3737 Main Street, Suite 500, Riverside, CA 92501  
(951) 782-4230 [www.waterboards.ca.gov/santaana/](http://www.waterboards.ca.gov/santaana/)

### Do I need a permit?

[http://www.waterboards.ca.gov/santaana/water\\_issues/programs/permit/do\\_i\\_need.shtml](http://www.waterboards.ca.gov/santaana/water_issues/programs/permit/do_i_need.shtml)

If your project requires a Clean Water Act Section 404 permit from the US Army Corps of Engineers, you must also obtain Clean Water Act Section 401 Water Quality Standards Certification from the RWQCB. Section 404 and Section 401 applications are often submitted concurrently. Discharges of fill to surface waters of the state that are not within US Army Corps jurisdiction, that is, projects that do not require a Section 404 permit, may require waste discharge requirements issued by the RWQCB.

### Construction Storm Water Permit

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml)

For construction projects, the landowner may need a Storm Water Pollution Prevention Plan (SWPPP), which specifies Best Management Practices (BMPs) to keep storm water runoff clean and free of sediment and other pollutants.

## California Department of Fish and Game (CDFG)

3602 Inland Empire Blvd, Suite C-220, Ontario, CA 91764  
(909) 484-0459

### 1602 Lake and Streambed Alteration Agreement

<http://www.dfg.ca.gov/habcon/1600/>

Incidental Take Permit: California Endangered Species Act <http://www.dfg.ca.gov/habcon/cesa/>

## US Fish and Wildlife Service (USFWS)

6010 Hidden Valley Rd., Suite 101, Carlsbad, CA 92011  
(760) 431-9440

### How to Obtain a Permit:

<http://www.fws.gov/permits/instructions/ObtainPermit.html>

## Helpful Resources

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If a regulatory agency requires mitigation for habitat impacts, a landowner may be required to contract with a non-regulatory entity, such as a Resource Conservation District or Land Trust, to restore and manage habitat.

### **Riverside-Corona Resource Conservation District (RCRCD)** or contact your local Resource Conservation District

4500 Glenwood Dr., Bldg. A, Riverside, CA 92501  
(951) 683-7691  
[www.RCRCD.com](http://www.RCRCD.com)

RCRCD is a non-regulatory local agency that helps private landowners sustain their natural resources. Learn more about habitat restoration and conservation easements from the publication *Conserving Critical Habitat* at: <http://RCRCD.com/Publications/ConservingCriticalHabitat.pdf>.

### **Riverside Land Conservancy (RLC)**

A non-profit land trust.  
4075 Mission Inn Avenue, Riverside, CA 92501  
(951) 788-0670  
[www.riversidelandconservancy.org](http://www.riversidelandconservancy.org)

### **Natural Resources Conservation Service (USDA-NRCS)**

For Western Riverside (951) 654-7139  
[www.nrcs.usda.gov](http://www.nrcs.usda.gov)  
NRCS works with landowners providing erosion control, stream stabilization, and natural resource conservation information.  
Field Office Technical Guides  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/fotg>

### **Low Impact Development Portal**

<http://www.casqa.org/LID/tabid/186/Default.aspx>

### **USGS National Hydrography Dataset maps**

<http://nhd.usgs.gov/> or <http://nationalmap.gov/viewers.html>

### **Riverside County**

Ordinances: Index at: <http://rivcocob.com/ords.htm>  
754: Storm Water/Urban Runoff Management  
458: Regulating Flood Hazard Areas (No fencing across waterways.)  
457: Grading and the California Building Code  
541: Relating to removal of rubbish

### **Oak Tree Guidelines**

[http://www.tlma.co.riverside.ca.us/planning/content/devproc/guidelines/oak\\_trees/oak\\_trees.html](http://www.tlma.co.riverside.ca.us/planning/content/devproc/guidelines/oak_trees/oak_trees.html)

### **Biological Reports**

<http://www.rctlma.org/epd/documents/BiologicalPoliciesProcedures.pdf>

Report illegal dumping in the County  
(888)782-6263.

### **City of Riverside**

Municipal Code 17.28.020 Hillside/Arroyo Grading (Minimum Grading Standards)

Code Enforcement (951) 826-2422  
Report illegal dumping, call 311.

Grading permits require Planning and Public Works approval [www.riversideca.gov/pworks](http://www.riversideca.gov/pworks)



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## Project Timing

Timing of work is an important consideration in preventing disturbance during breeding and nesting seasons and to prevent erosion during the rainy season. A project's Storm Water Pollution Prevention Plan (SWPPP) will require that erosion control measures be installed prior to earth movement.



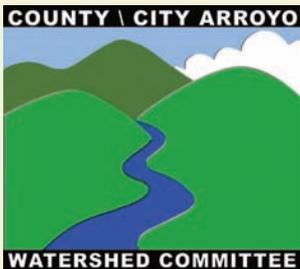
Kildeer  
BY EDITH MARACLE

The purpose of this introductory guide is to provide an overview of information about legal requirements that may apply to activities that impact waterways and wetlands. Be advised that projects in and adjacent to waterways and wetlands require consultation with multiple agencies and may require permits from each regulatory agency. Due to the complexity of regulations, this guide provides only general information about the process. Each situation requires reviews by agencies with decisions based on applicable laws and site conditions.

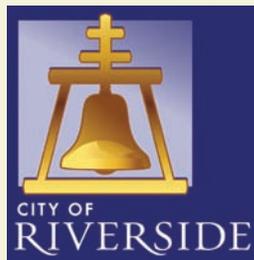


Kildeer eggs

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This publication is a project of the Riverside County and City Arroyo-Watershed Committee (CCAC) with the assistance of many organizations. The committee works to improve coordination, planning and education concerning local waterways, water quality, riparian habitat and the Santa Ana Watershed. The CCAC includes concerned citizens and representatives of the City and County of Riverside and natural resource agencies and organizations. In 2006, the CCAC prepared the Riverside Arroyo Watershed Policy Study with recommendations for the County Board of Supervisors and the Riverside City Council (<http://www.rctlma.org/planning/content/geninfo/CCACPolicyStudy.pdf>). Many of those recommendations have been, or are in the process of being incorporated into the City and County General Plans and/or procedures. Citizens are invited to join the collaboration.



RIVERSIDE-CORONA RESOURCE CONSERVATION DISTRICT

This publication was developed for the CCAC by and with the Riverside-Corona Resource Conservation District. Thank you to the many partners who participated in its review. Comments and suggestions are welcome: (909) 238-8338, [Ruiz@rcrcd.com](mailto:Ruiz@rcrcd.com).