



## **RRWA Environmental Column – April 2007**

### **Is Your Creek Healthy?**

The many miles of “creeks” are a natural treasure that benefits everyone who lives within the Russian River Watershed. Natural, healthy creeks with vegetated buffer zones (riparian area) along them work directly toward protecting creek-side property from erosion, improving water quality, preventing floods, and stabilizing banks. Creek-side vegetation helps to filter pollutants, while slowing flood pulses from storms. Creeks and riparian areas are a part of a cities’ “green infrastructure” as much as parks and open space. The use of natural systems to control storm-water runoff, flooding, and protect our drinking water is a benefit to our communities. It is also valuable for the natural world around us.

How can you tell if your local creek is healthy? Cool, clean and clear flowing water is one sign. Clearer water usually means higher oxygen concentrations for aquatic plants and animals. Are there deep pools and shallow areas where water flows over rocks (riffles)? Varying flow conditions add oxygen to the water and provide important habitat nooks for fish and insects. Rocks and gravel on the creek bottom reduce erosion and provide spawning grounds for fish. Abundance and diversity of native fish, amphibian and aquatic insect populations are good indicators of a healthy creek.

Fish, insects, water fowl and terrestrial species need to be able to find places to hide from predators, forage for food, reproduce, and rest. Diverse habitat is provided by dense vegetation and structures in the stream like large logs, tree roots, boulders, undercut banks, and a mixed creek bottom of sand, gravel, cobble, boulders, and bedrock. Wildlife will also use creek corridors to travel through their territory. Trees provide shade to help cool the water.

Creeks with healthy, functioning riparian areas provide natural beauty and enhance property values. The economic value of these benefits is not always recognized or appreciated. Healthy streams and riparian areas are naturally resilient, which allow recovery from natural disturbances such as flooding or drought. Degraded creek and riparian systems are not able to recover as quickly, if at all, from natural or human-caused disturbances.

Access, vegetation and wildlife in healthy creek habitats provide exceptional opportunities to enjoy natural beauty through recreation. An integrated creek-side trail system provides an area for walks, bike rides, bird-watching, or simple enjoyment of the outdoors away from busy traffic. Public access to creeks also provides unique educational opportunities for students of all ages. Learning ranges from a child discovering how and where animals live to adults learning how to monitor their creeks to protect their quality of life.



## **RUSSIAN RIVER WATERSHED ASSOCIATION**

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Healthy creeks are an important part of the ecological and social fabric of our community. Creeks that are cared for are recognized sources of pride and inspiration. It is important to remember that human activities have direct impacts on a stream's physical and chemical characteristics. Littering can blight a creek's natural beauty and is a detriment to the variety of life creeks support. Removal of vegetative cover and disturbance of the soil cause erosion carrying sediment into creeks. Runoff from farms, homes, livestock, industry, and roads may carry heavy nutrient loads and chemical pollutants into creek waters. Things that you can do to keep your creeks healthy include: joining a creek stewardship group, throwing trash in appropriate receptacles – not in the streets, washing your car at a carwash facility, and disposing of pet waste properly. With increased awareness, we can all work together to keep existing stream habitat and water quality as healthy as possible.

*The Russian River Watershed Association ([www.rrwatershed.org](http://www.rrwatershed.org)) is an association of eleven cities, counties and special districts in the watershed that are working together on programs for clean water, fisheries restoration and watershed enhancement.*