

# Understanding Napa County Watersheds

## What is a Watershed?

*No matter where you are, you are in a watershed!*

A **watershed** is an area of land that catches rain and snow and drains it into a body of water, such as a river, pond, estuary, bay, lake, or ocean. A watershed is also called a drainage basin. Ridgetops of hills or mountains form the boundaries between watersheds.

A drop of water falling on the top of a ridge will flow by gravity into one watershed or another depending upon the topography or lay of the land. Watershed boundaries often cross private property, county, state, and even international borders.

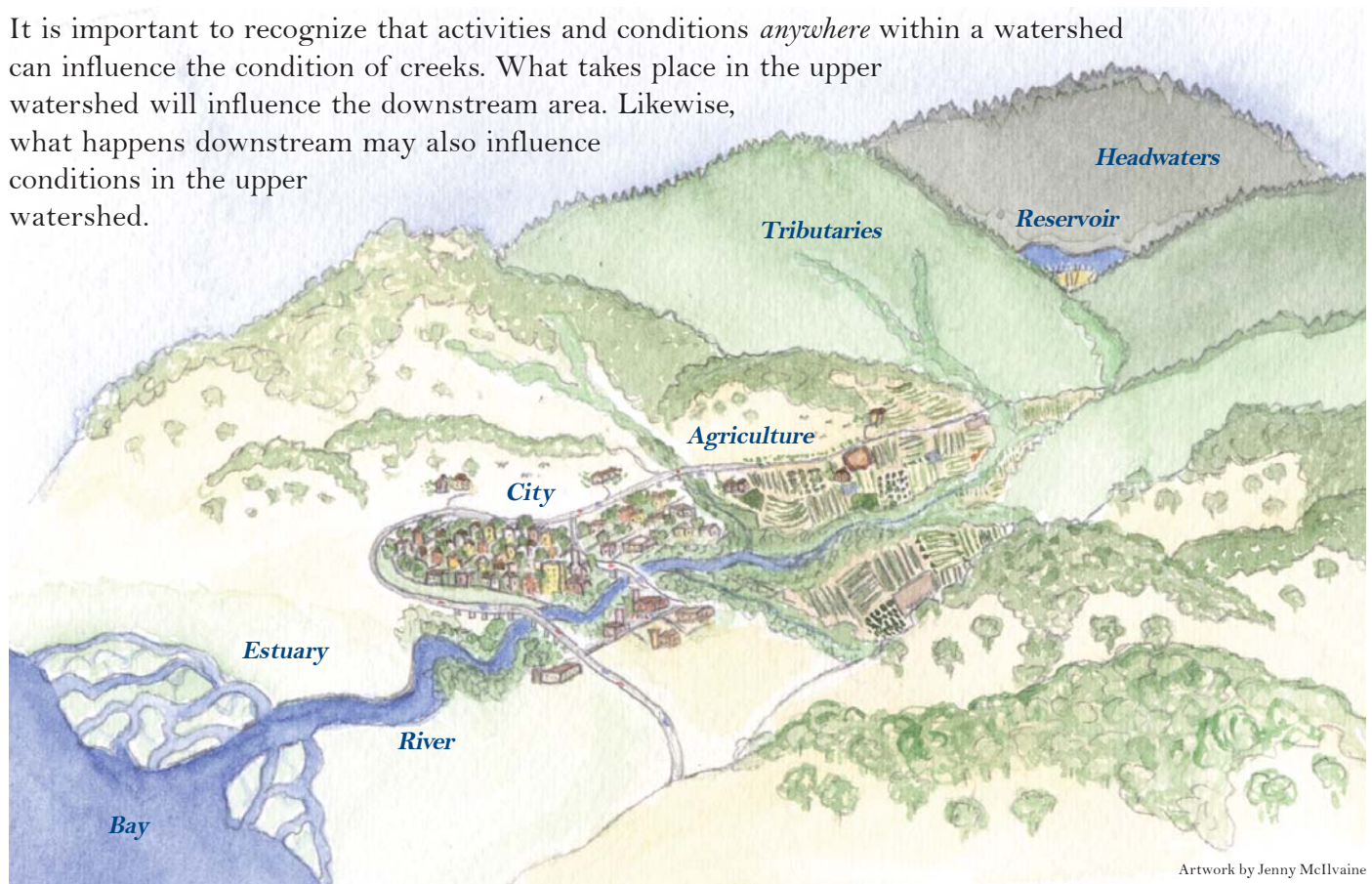
The upstream areas of a watershed are called the **headwaters**.

As you move downhill and downstream, tiny rivulets and streams combine to form larger rivers which eventually empty into a larger body of water such as a lake or bay.

The area of land in a watershed can be immense or it can be very small. Large watersheds often are composed of several smaller watersheds, called **sub-watersheds** or sub-drainages. For example, Sulphur Creek flows into the Napa River and has its own watershed, but it is also part of the much larger Napa River watershed, which is part of the even larger San Pablo Bay watershed.

It is important to recognize that activities and conditions *anywhere* within a watershed can influence the condition of creeks. What takes place in the upper watershed will influence the downstream area. Likewise, what happens downstream may also influence conditions in the upper watershed.

**Watershed:** an area of land that catches rain and snow and drains it into a body of water, such as a river, pond, estuary, bay, lake, or ocean.



Artwork by Jenny McIlvaine

# NAPA COUNTY WATERSHEDS

Napa County encompasses over half a million acres (507,437) and has three major watersheds: the Napa River, Putah Creek, and Suisun Creek Watersheds.

## Napa River Watershed

With the exception of a small portion in Solano County, the Napa River Watershed is almost entirely within the boundaries of Napa County. It is contained by Mt. St. Helena to the north, the Mayacamas Mountains to the west, Howell Mountain, Atlas Peak, and Mt. George to the east, and the Napa-Sonoma Marsh to the south. The Napa River runs through the center of the watershed on the valley floor, draining numerous tributaries along a 55 mile run from high in the headwaters of Mt. St. Helena to the San Pablo Bay.

The Napa River winds through varied landscapes of forested mountain slopes, vineyards, urban areas, open pasture, grasslands, industrial zones, and marshes. The Napa River Watershed is home to most of the residents and developed areas in the county. It is estimated that 95% or more of the entire population of Napa County live in the Napa River Watershed. Reservoirs in the watershed include Lake Hennessey, Lake Milliken, and Bell Canyon Reservoir. This watershed also provides many different habitats for fish and wildlife, including chaparral, brackish and salt water marsh, vernal pools, forests, oak woodlands, grasslands, and riparian and freshwater communities.

## Putah Creek Watershed

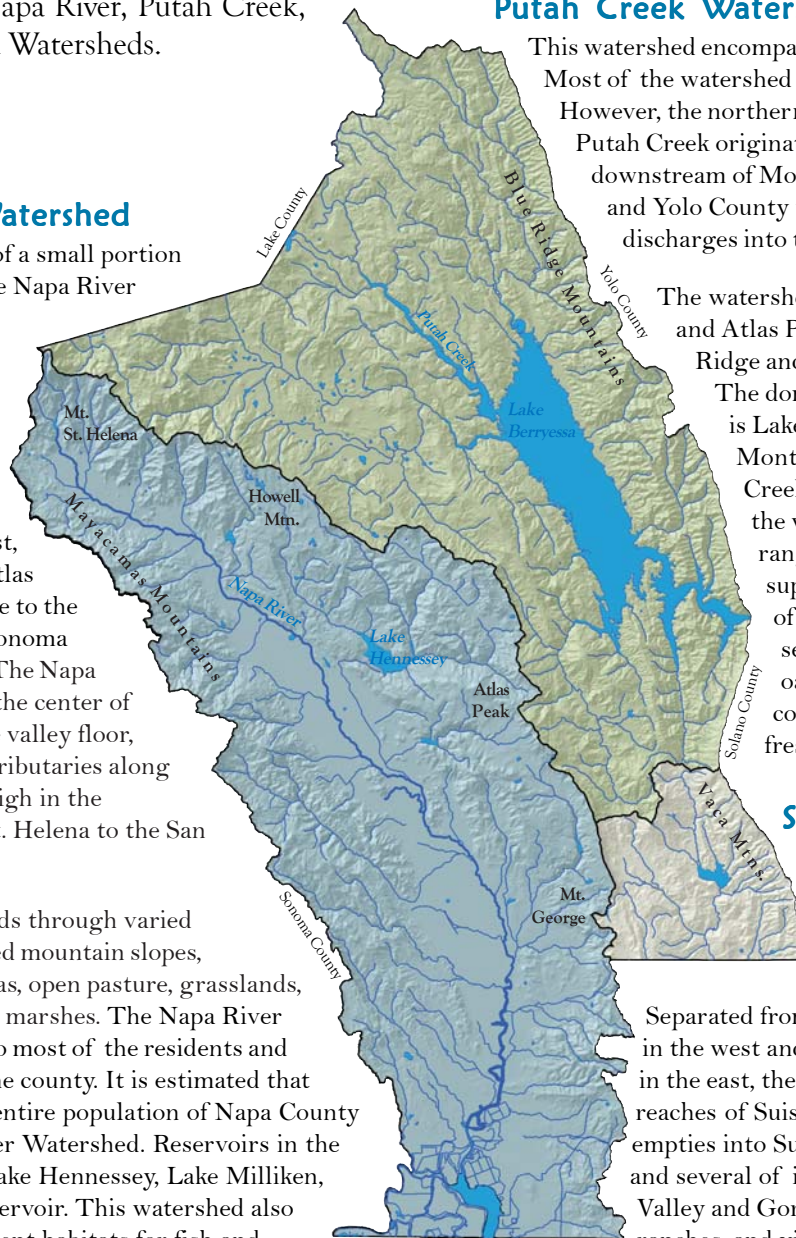
This watershed encompasses lands in four counties. Most of the watershed lands fall within Napa County. However, the northern portion is in Lake County where Putah Creek originates, and the southern portion downstream of Monticello dam falls in both Solano and Yolo County where Putah Creek ultimately discharges into the Sacramento River.

The watershed is flanked by Howell Mountain and Atlas Peak to the west and the Blue Ridge and Vaca Mountains to the east. The dominant feature in the watershed is Lake Berryessa, formed when Monticello Dam was built on Putah Creek in 1957. Major land uses in the watershed are recreation and rangeland. The watershed also supports a unique assemblage of natural communities including serpentine chaparral, grasslands, oak savanna, oak and mixed oak/coniferous woodlands, riparian, freshwater lake, and cliff habitats.

## Suisun Creek Watershed

The Suisun Creek Watershed falls within both Solano and Napa Counties. Only a portion of the upper part of the watershed is in Napa County.

Separated from the Napa Valley by Mt. George in the west and bounded by the Vaca Mountains in the east, the watershed contains the upper reaches of Suisun Creek (which eventually empties into Suisun Marsh and Suisun Bay) and several of its tributaries including Wooden Valley and Gordon Valley Creeks. Farms, ranches, and vineyards are found in this watershed, along with oak woodlands and grassland habitats, and a municipal water supply reservoir, Lake Curry.



This fact sheet was prepared by Jenny McIlvaine of the Napa County Resource Conservation District and funded through Napa County's Watershed Education Program coordinated by the Conservation Division of the Napa County Conservation, Development and Planning Dept.