



Laguna Hike

*Welcome to the West
County celebration of
Earth Day 1990!*

*We invite you to join us on a hike
through a section of the Laguna de
Santa Rosa. Please stay with your
leader. The trail is somewhat rough, as
the planned trail system has not yet
been constructed. The area is also very
environmentally sensitive. You will
notice markers along the way which
will refer to corresponding numbers in
this brochure. You can also get
additional information from
your hike guide.*

Thank you for coming!

1 OVERVIEW

The Laguna de Santa Rosa is a major tributary of the lower Russian River. It flows south to north and includes the area from Cotati to the Russian River with its floodplain and adjacent higher ground.

The dominant plants are grassland and oak savannah, marshes and riparian woodland. These plant communities provide important habitat for many species of birds, fish and mammals. Raccoon, deer, skunk, fox, mink, weasel, rabbit and even bobcat are just a few of the many animals that make the Laguna their home. Birds that are commonly found here include blue heron, egrets, bluebird, owl, dove, hummingbird, hawk and falcon to name only a few. The stream provides habitat for such fish as chub, catfish, bluegill, bass and trout along with a variety of reptiles like frogs, snakes, salamander and turtles.

The flood plain that comprises the majority of the site has very gentle slopes which range from 50-80 feet above sea level. The hills to the west rise quickly from 50 to 300 feet above sea level. Plate tectonics explain the origin of the area well. The westward moving North American Plate running over the east Pacific Rise has created a northwest trending fault zone called the San Andreas Fault. This movement has caused three major formations to be shifted and folded creating a mix of soil and rock formations. Sediments of marine origin, sand, sandstone, clay, gravel and pebbles along with metamorphic and igneous rocks provide the geologic foundation upon which the Laguna precariously rests. The Tolay Fault passes through the hills west of Sebastopol and is actually the closest fault to the Laguna; the main San Andreas fault lying farther west on the coast. The primary concern with seismic activity in the Laguna is associated with its high liquefaction potential.

It is extremely important that, as we watch our county grow, we realize how important it is to maintain this floodplain. In high rainfall years, back up from the Russian River as well as drainage from the feeder

Atascadero, Calder and Zimpher Creeks along with the already high water table mean that it is important to keep this area available for the well-being of the residents both human and non-human.

2 DEVELOPED RECREATION

From the Sebastopol Community Center you'll notice that an area that was once primarily commercial and industrial is undergoing a change as the planned park and recreation area begins to take shape. The Community Center headquarters a developed park with facilities for organized sports and activities geared to the leisure time interests of an active and growing community. Slower to develop is the Laguna Linear Park, but the designation has been set forth in the Sebastopol General Plan. It is noteworthy that the aesthetic considerations in the construction of newer industrial buildings have improved over what has been done in the past.

3 SEWER LAGOON

These abandoned sewer lagoons are the remnants of the old Sebastopol treatment plant that treated sewage and pumped it into the Laguna. Sewage from the city of Sebastopol is now pumped to the main facility on Llano Road.

4 COWS AND WILDLIFE

Before the arrival of the dairy industry and its grazing practices, most of the low flatland was in oak savannah. The waterways were rich in riparian growth with many small lakes and marshes. The hillsides and higher areas were forested with firs and redwoods. As the land was developed for agricultural, the savannah reverted to grassland and the forests were removed. The native grasses and oak seedlings cannot survive heavy grazing. Evidence of a positive influence by man's intervention here is the placement of bird houses for nesting bluebirds and other species.



5/ WILDLIFE/WATERCOURSES

You'll notice from this point that it appears the water in the Laguna is a small stream. This was not always so, but at the urging of farmers in 1966, channelization of the Laguna was begun. They wanted to farm the fields sooner after the winter rains ended. Before the channel was built, the Laguna became a series of ponds and more or less undefined drainage courses. There averaged about 1000 acres of marsh land which has been lost with the inevitable loss of wildlife that uses wetlands as their natural environment.

6/ AQUATIC PLANTS AND OAKS

Looking into this old sewer lagoon, you'll see thick layers of duckweed, a non-native aquatic plant. It points up a type of pollution that is caused by the removal of riparian growth that allows for the water temperature to rise beyond tolerable levels for many species of fish. This condition accelerates biological processes in the water and reduces the dissolved oxygen content of the water, thus increasing the growth of aquatic plants which makes for unsuitable conditions for fish and wildlife. Across the stream you'll see a stand of oak trees which at one time were more plentiful. The oak savannah not only provided habitat for many species of wildlife, but also creates a cooling affect on the slow moving waters. This prevents the "thermal pollution" mentioned above as the dissolved oxygen level is then more tolerable to the inhabitants.

7/ STREAM VIEWS

Looking out from this vantage point, you can take in the beauty of the Laguna as it spreads out in a vista of lush, green growth against a backdrop of mountains to the east. It appears to be a picture of natural beauty, but municipal sewage plants have been discharging water into the Laguna since 1924. A lot of work has been done to process and reclaim wastewater, but major water quality problems have been low dissolved

oxygen, high levels of nutrients, high algae growth, high water temperatures and residual chlorine. There have been cases in which feed grown on earth dredged from the Laguna channel has been unsafe for cattle to eat due to its high nitrogen levels.

8 BERRY BARRIER

The blackberry brambles here provide a barrier of protection for the stream bank as well as cover for many species of wildlife. These shrubby areas are in a process of changing to a woodland community. The roots of the bushes help to transpire considerable amounts of water as well as provide shade that keeps the water temperature lower.

9 BANK STABILIZATION

Although not necessarily aesthetically pleasing to look at, these concrete chunks here have been man's attempt to forestall the inevitable erosion process on the banks of the channels that he has created.

10 WETLANDS

From this vantage point we can see some examples of the wetlands that used to be more common in the Laguna before channelization was begun. These wetlands make it difficult to hike here, but it is important that these areas be preserved as they provide feeding and nesting areas for many species of birds as well as habitat for many reptiles, amphibians and insects. Typical plants here are rushes, cattails, sedges, knotweed and duckweed.

11 FLOODS AND DEBRIS

The remains of floods over the years can be seen here. Debris from upstream gives clues as to how man is using the land. The flow of the Laguna varies from 12 cubic feet per second to 1000 times that during floods. The Laguna helps reduce flooding in communities downstream on the Russian River.

12 STREAMSIDE INTERLUDE

A beautiful, pastoral scene; a resource that nature has provided for us for flood protection. It affords a natural barrier to the ever spreading development from the east. From this point you can see the stream again.

13 MAN'S IMPACT

The impact of man's activities on the Laguna is obvious here as is evidenced by the articles remaining after major floods. Of great significance to the health of the Laguna is the amount of silt that gets deposited in the Laguna during the flood season. A seemingly natural event through erosion, but as man continually shifts and moves the land to suit our demands for housing and agriculture, we intensify the erosion process on all the streams and runoff areas that feed into the Laguna.

14 WHAT'S NEXT

The Sebastopol General Plan calls for a Laguna Linear Park to run north and south of Highway 12. It is designated as a "passive" park to preserve the area. A request for proposal has been made which would allow the city to hire a consultant to begin the planning process.

Also proposed is legislation from Doug Bosco for Federal Preserve status for the Laguna. We can all contribute to the future of our Laguna by inputting our ideas and staying informed on the progress and direction of these plans.

15 ZIMPHER CREEK

This creek finishes its journey here after traveling underground through many parts of Sebastopol. It is a year round creek that begins in the hills of Sebastopol, goes underground in various places through the main residential area of town, surfaces occasionally and goes back underground at the old cannery before reemerging here to discharge into the Laguna.