River Habitat

Dragonfly, a Multicolored darner
River Habitat

All living things need water to survive. Many animals and plants depend on the Santa Ynez River. Also, it is the drinking water for many local cities and towns.

Cachuma Lake is filled with water from the Santa Ynez River.

Where does the river water come from?
The water in the Santa Ynez River comes from rain. The land and mountains around the river catch and collect the rain that falls. The water flows by gravity down the mountains into the river valley, and from there it flows into the ocean. All the land that catches the rain is called our watershed. Cachuma Lake is just one part along the Santa Ynez River Watershed, which starts in the mountains and ends at the ocean.

Where does the river water go?
The Santa Ynez River is 90 miles long. It starts up in the mountains, flows through the valley, and into the Pacific Ocean. Along the way, the river fills up Cachuma Lake and continues past the dam (when there is enough water), and flows until it reaches the ocean near Lompoc, California.

Who depends on the water?
Wildlife and plants use the river to drink, bathe, live in and eat from. Bald eagles and trout are just two examples of wildlife that depend on the river. Also, people in cities all over the Santa Barbara area use the water. We use it to drink, take showers, wash dishes, and water our gardens. It is also used by businesses to grow crops, in restaurants and stores, and in manufacturing factories.

River subjects in this book:
- Bald eagle
- Rainbow/steelhead trout
- Water pollution
- Water conservation
Bald eagles are hunters, or birds of prey. They have strong, hooked beaks and powerful feet with sharp talons. These tools help them to catch and eat such prey as fish and rodents.

Bald eagles only occur in North America. They are huge birds and important predators. In the 1970s, the bald eagle population in the United States was very low. The cause was a chemical called DDT. It was widely used on food crops and to kill insects that spread human disease. However, DDT got into lakes, rivers, and fish eaten by eagles. It poisoned them. DDT was outlawed, and eagles are coming back. A nesting pair of eagles has lived at Cachuma Lake since 1989. Many eagles migrate to Cachuma Lake to spend the winter. In spring, they fly to northern states and Canada to spend the summer.
Rainbow/Steelhead Trout

*R. mykiss*

Rainbow trout are native fish in the Santa Ynez River. They are also called steelhead trout. They can live part of their lives in fresh water rivers and part of their lives in the salty ocean.

Rainbow/steelhead trout are anadromous (an-A-dro-mus), meaning they can spend part of their lives in fresh water and part in salt water. The tiny eggs of rainbow trout incubate in gravel beds of oxygen-rich, cool, fresh flowing creeks and rivers. At about one year old, many of them swim down river to the coast. There, they wait in partly salty water so their bodies can change to adjust to the salt. Then they go out to the ocean. In the ocean, they grow to adult size and become steelhead trout. When it’s time to spawn (lay and fertilize eggs), they return to fresh waters where they were born.
How is our river a “clean machine”? The river valley that catches the water is natural and wild, not covered with roads and buildings that can have harmful chemicals like gas and oil. Once in the river, the water flows through plants, rocks, sand, and gravel that trap dirt and pollution. Also, there are living organisms in the water that eat harmful chemicals and the waste from fish and other animals. As the water flows through natural areas, it gets cleaner. We call the ability of rivers to clean the water biological filtration or “biofiltration.”
Water Conservation: Be Water Wise

Where does our water come from? It comes from rain. All the water that comes to our homes is from rain.

Water is worth more than gold. We can live without gold, but we can’t survive without water. All the water that fills the Santa Ynez River comes from rain through the water cycle. Why should we be careful not to waste water? If we use more water than the rain gives us, we could run out. Sometimes drought occurs in the weather, when there is no rain for several years. We store water in Cachuma Lake to prepare for drought.

Who uses this water? People in cities in the Santa Barbara area, including Santa Ynez, Solvang, Buellton, Lompoc, Santa Barbara, Goleta, Montecito, and Carpinteria. If you live in or near these towns, then YOU depend on the river, and you share the water with wildlife, plant life and other people. If you live in other cities, can you find out what river your water comes from?

Can You Be Water Wise?

• Shorter showers
• Turn off the faucet when you brush your teeth
• Collect the cold water while you wait for the hot water. Use it to water plants
• Ask your parents to fix leaky faucets
• Install low-flow toilets
• What else can YOU do?
River Habitat: Think About It!

Bald Eagle

• Can you think of reasons why the bald eagle was made our national symbol?

Remember that bald eagles were being poisoned by a chemical pesticide.
• What is the benefit of using chemical pesticides on food crops?
• What is the benefit of using no chemicals on food crops?

Bald eagles have made a fantastic recovery from the 1970s. There are bald eagles at Cachuma Lake, on the Channel Islands, and in other places in Santa Barbara county.
• Can you think of ways we can create a healthier environment for bald eagles?

Rainbow/Steelhead Trout

About a hundred years ago, around 1900, up to 20,000 steelhead trout migrated up the Santa Ynez River every year to spawn. Now there are so few that they are on the Endangered Species list.
• How can migrating trout be affected by dams built on rivers?
• What can we do to allow fish to migrate and spawn?

A River is a Clean Machine

• Where does the river flow to?
• Where do most rivers in the world flow to?
• How clean do you think the water is when it runs through cities and town?
• When it rains on pavement and roads, where does the water flow to?
• How can we help rivers be clean machines?

Water Conservation

• Have you seen water being wasted lately?
• As the human population grows, how can we make sure everyone has enough water to drink?
• How can we have beautiful gardens even if we are trying to conserve water? Do all plants need the same amounts of water?
• In the western United States, many cities pipe in water from hundreds of miles away. What do you think happens in the places where that water is from?
• Our bodies need plenty of water to stay healthy. We shouldn’t drink less water, we should ________________ less!
• What is one thing you can do TODAY to conserve water?