

WHAT IS A WATERSHED?

It may sound like it could be a physical structure like a small building, but a watershed is actually any area of land that water flows through in creeks, streams, arroyos and rivers.

It also includes a body of water where that water flows to, such as lakes, reservoirs, and bays on its way to the ocean.

Livermore is part of the northern Alameda Creek Watershed, and everywhere you go, you will be in a watershed.



Now, let's explore the Alameda Creek Watershed together!

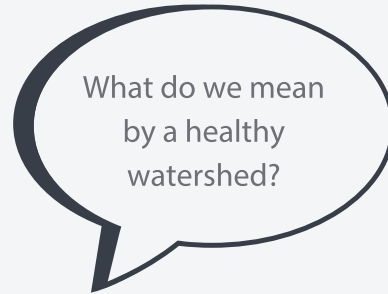
So why are watersheds important?

Before we answer this question, take a quick look at this awesome resource from the EPA (Environmental Protection Agency).

This site explains all the ways that our watershed, in Livermore, is healthy or maybe not so healthy.

KEEPING WATERSHEDS HEALTHY

Question break!



If you responded by saying or thinking a healthy watershed has little to no pollution, you would be correct!

Pollution can occur wherever humans are. This is why it's important to Leave No Trace and recycle plastic, glass, paper, and cans. For example, if your household threw all its trash into the street instead of the appropriate bin, where would all that trash go? We'll find out in the next exercise.

Open up this interactive map. Then, zoom in on your home watershed and follow the streams from the hills to the Bay.

If we all threw trash in the street, rainstorms would wash trash into the storm drains, then into our local arroyos (seasonal streams), into Alameda Creek, to San Francisco Bay, and then to the Pacific Ocean. It's all connected - this is why we want to keep our watershed free from pollution!

Another way we can keep watersheds healthy is by protecting them in open spaces like parks, farms, and conservation areas.

WHAT WATERSHEDS DO

The roots of trees and shrubs hold the soil in place and help keep erosion from happening. Erosion is the natural (and sometimes human made) occurrence of land being eaten away by wind or water.

Trees help provide good wildlife habitat. They shade the streams, keeping water temperatures down. Trees also provide shelter, food, and a place for birds and animals to raise their young. They also filter air pollution and provide oxygen for all who breathe.

How do I do the Hands On Activity online?



You can use the Chrome [extension Kami](#) to complete your YIN activities on your phone or computer! Check out [this video](#) to learn more about Kami.

If you are using a computer, just add the Kami extension to your Chrome and open the "Hands On Activity" with the link below or from the lessons page.

If you are on a phone or tablet, make sure you have the [Chrome](#) and [Drive](#) apps installed and save the "Hands On Activity" to your Drive.

Visit the Kami web viewer and open the activity in your Drive folder.

If you want to print your activity and lesson guide at home, visit the "Hands On Activity" link to find a printable copy of the entire lesson.

HANDS ON ACTIVITY

Now that you have a little understanding of watersheds, open up the “Hands On Activity” for this lesson and print it or open it on your computer. Gather colored pencils, markers, and/or crayons (at least 4 colors).

You are now a land planner, and you are designing a community that you would like to live in.

Thinking about Livermore and other cities you have been to, what is similar about those cities? What’s different? What do you like or what do you think you could improve upon?

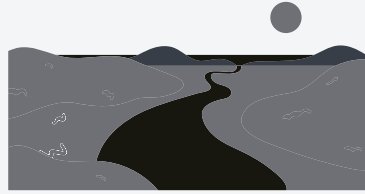
Color in the stream that is running through your watershed. Draw green trees in places where you would put open spaces like parks. Draw purple grapes in places where you would like farms and ranches. Draw a brown box for places you would want any kind of housing like condos, apartments, or homes. Draw a yellow box for places you would like commercial buildings like a grocery store, shops, a library and a school.



If you would rather create your own symbols, please do so, you are the land planner! Just remember, you will want a community that creates a healthy watershed! What would be a good thing to protect along the creek?

Give yourself some time and include other members of your household if you would like. Land planners often have to work with multiple agencies and people to come up with a plan that will be best for the community, farmers, and wildlife.

TAKEAWAYS



Now that you've completed your watershed map, think on the following questions:

- How does your community look?
- Does it have more buildings than open space or more open space than buildings?
- Or maybe no open space or no buildings? Is it pretty equal?
- Where did you put those buildings and open spaces? On the hills? By the water?
- Every community is different, but ultimately a balance of both development and open space is important for a variety of reasons. Why do you think we need both?
- What would happen if we just had one and not the other?