

Pollution Soup

Large clear container

Vials of straw (plant waste)

Vials of vermiculite (organic waste)

Vials of glitter (mercury)

Vials of sand (soil sediment)

Vials of coffee (human waste/sewage)

Vials of vegetable oil (oil)

Vials of green food coloring (toxic chemicals)

Vials of shredded paper (garbage)

Additional resources on Silicon Valley water history

Pollution Soup

This activity is a visual demonstration of how the Santa Clara Valley Watershed has been influenced by changes over time. It is a very useful introduction to the topic of human impact on the environment, the important decisions humans have made to balance the impact of development and the quality of the environment, and possible solutions that can move us toward sustainable communities.

Guiding Questions

Ask students what they think it might have been like 500 years ago. What about 200 years ago? Ask them if they have ever heard their grandparents talk about what it was like when they were children. Then explain that you are going to read a story about the history of the Santa Clara Valley watershed and that they are going to help you recreate what happened.

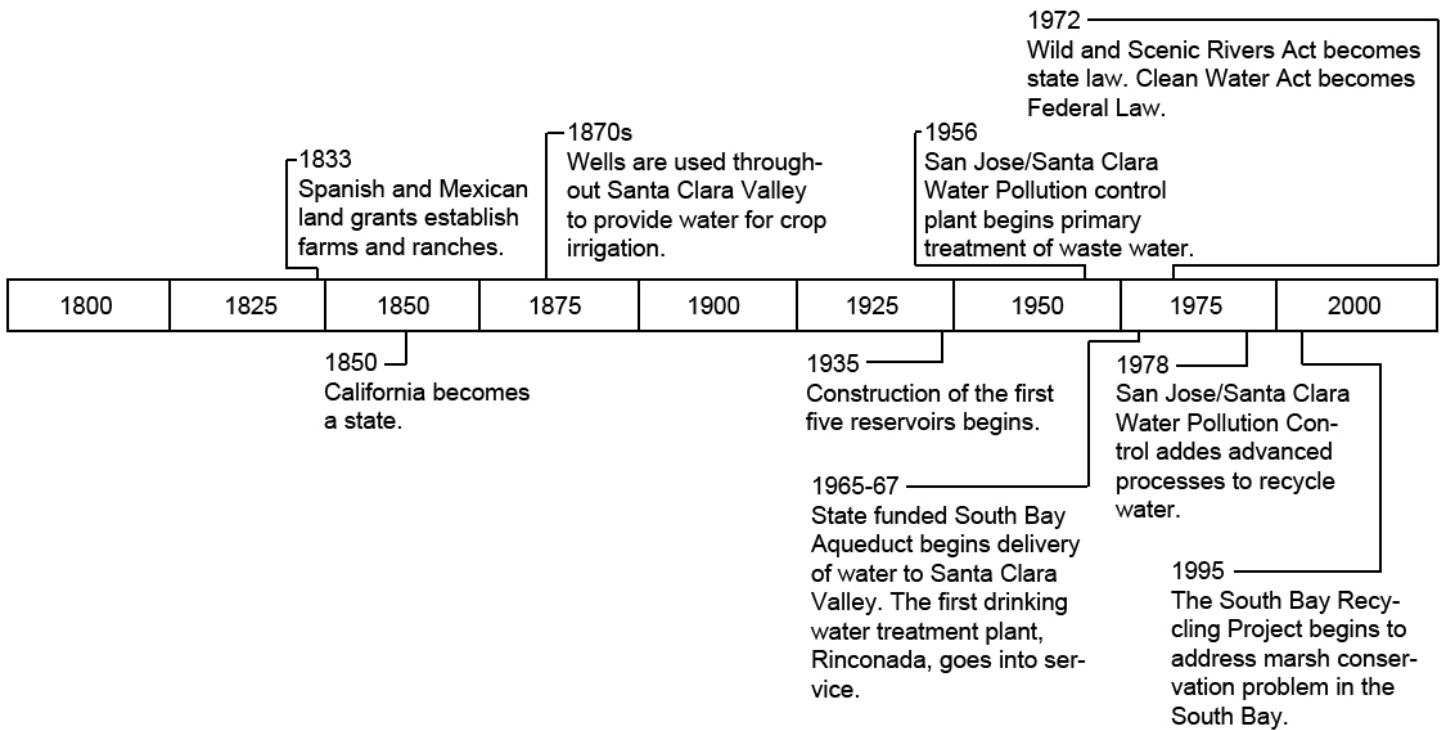
Content

Point Source Pollution – Pollution that comes from a place you can point at such as pipes from a factory or leaking containers. The government can make laws for the companies or people who create this pollution to control it.

Nonpoint Source Pollution – Pollution that comes from many different sources. In the case of water pollution, rain will wash pollutants such as fertilizers from farms, oil from roads, dirt from constructions, and trash into streams. There is no easy way to point at who caused it.

Clean Water Act – Congress passed the Clean Water Act (CWA) in 1972. Its purpose is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Its goal is to make waterways fishable and swimmable, ban toxic pollution, and eliminate discharge of all pollution into navigable waters.

South Bay Aqueduct – Long canals and pipes that brings water to the eastern part of San Francisco Bay from the Sacramento-San Joaquin Delta which is over 40 miles away. The water pump has a capacity to move 330 cubic feet per second. The aqueduct flows along the eastern and southern edges of Livermore Valley and through a series of tunnels to the foothills of eastern San Jose.



Set Up

Fill the large clear container with water; this will represent San Francisco Bay. Have the eight types of vials at hand – you will only use one vial of each. Each vial represents a different type of pollution and corresponds to an event within the History of Pollution story.

Activity

Read the story aloud and call volunteers to add pollutants to the bay as they arise in the story.

Note: The points in the story where you add pollution are in bold. Some events do not have a corresponding vial to add.