



Developed By:
**Inside The
Outdoors**

Title: **Watersheds**

Subjects: **SCI**

Grade Levels: **5th**

California Standards: **5th: 4.3d, 4.3e**

Kit Story: A watershed is a drainage basin that collects water in a stream, river, lake, or the ocean. It may include many square miles of valleys and ridges, but they all connect to one major runoff source, like a river or underground aquifer. It includes surface water and ground water. This may include aquifers (underground reservoirs of water that are stored in porous, permeable rocks such as shale and sandstone.) Porosity refers to the spaces found inside sedimentary rocks. Permeability refers to how well these spaces are connected.

Pollution enters a watershed in one of two ways. One is called point source pollution, which comes from a single place, and spreads out to pollute an area. A factory waste pipe might be an example of point source pollution. The other is called non-pointsource pollution, which is untraceable, and comes from things like storm drains, and leaky auto oil pans.

The Santa Ana Water Shed includes many basins and ridges that start in the San Bernardino Mountains, runoff to the Santa Ana River, and runs all the way to the ocean near Huntington Beach.

The Santa Ana Watershed is the largest watershed in Orange County, covering 153.2 square miles. The river begins almost 75 miles away in the San Bernardino Mountains, crossing central Orange County before emptying into the Pacific Ocean. The Orange County portion of the watershed includes portions of the cities of Anaheim, Brea, Huntington Beach, Orange, Placentia, Santa Ana, Villa Park, and Yorba Linda. The river

Assets**Asset Information**

serves as the main tributary to the watershed with Santiago Creek being the largest tributary within Orange County

Assets

Asset Information



Title: **Reservoir Rocks**
Filename: **picture 8 sedona box canyon.JPG**
Artist/Photographer: **Jason Westfall**
Location: **Sedona, AZ**
Date: **2/05**

Description:
An aquifer is underground storage for water. This storage happens in rocks that are porous and permeable. Sandstone and shale are examples of rocks that can be excellent reservoirs.



Title: **Lake Tahoe from one of it**
Filename: **lake tahoe.JPG**
Artist/Photographer: **Jason Westfall**
Location: **Lake Tahoe**

Description:
Snow from the top of this mountain will melt, drain to a stream, and eventually end up in Lake Tahoe.



Title: **Tuber**
Filename: **tuber.JPG**

Description:
This tuber is just having fun, but he could be polluting the watershed. Sunscreen or other petrochemicals could be washing off this person, and into the watershed. Because we would not generally be able to trace the source of this pollution, it is known as non-point source pollution.

Assets

Asset Information



Title: **Water draining down from the high country**

Filename: **picture 6 evolution cr.JPG**

Description:

All the water and snow on the surrounding ridges will end up in this creek.



Title: **Getting Water**

Filename: **picture 5 getting water.JPG**

Description:

This hiker could be the victim of an up-stream waste pipe. Because we could trace the source of the pollution, we call it point source pollution.



Title: **Crocodile**

Filename: **picture 4 croc.JPG**

Description:

Wildlife is often affected by pollution running down stream.



Title: **Pomona**

Filename: **pomona.mp3**

Performer: **Mill Creek Expedition**

Date: **2/97**

Original Media: **CD**

Description:

This original resophonic guitar music is reminiscent of flowing water.