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Period 1 & 2

Revised Script Version 2

Water is essential to all life on Earth; it sustains all forms of creatures. There are many kinds of water systems on Earth, including oceans and watersheds. A watershed is a region draining into a river, river system, or other body of water. In the Los Penasquitos watershed, the wastewater department does not treat water flowing from the street into storm drains.

(watershed picture, creek) (*urban runoff and waste*biological reserve and recreation*)

The Los Peñasquitos Watershed is a total of about **100 square miles of** urbanized **land**, and open space. Approximately **400,000 people** reside in the watershed. This means that runoff from their households' finds its way into water bodies including the Los Peñasquitos Creek, the Tecolote Creek and the Pacific Ocean.

(urbanized land, pictures of the creeks and ocean)

Communities in this watershed include Poway, Rancho Peñasquitos, Scripps Miramar Ranch, Mira Mesa, Carmel Valley, Del Mar, Clairemont Mesa, La Jolla, Pacific Beach, and Bay Park.

(community pictures)

The Los Peñasquitos Creek empties into the Peñasquitos Lagoon, which is a biological reserve. Additionally, the land parallel to the Los Peñasquitos Creek is "The Los Peñasquitos Preserve".

(creek and lagoon pics/video)

The Los Peñasquitos Preserve was acquired by the City of San Diego in 1982 for use as Open Space. The creek is designated for recreational use, as the Preserve offers hiking, biking, and equestrian opportunities. Another beneficial use is that the creek provides water for agriculture and animals that call PQ home. Some of these animals are endangered and protected zones have been set up just for them. The Preserve is approximately 7 miles long and includes the Lopez Canyon in Mira Mesa. The creek and it's tributaries such as Chicarita Creek in Sabre Springs and Cypress Creek in Scripps Ranch empty out into the Los Peñasquitos Lagoon at the end of the Preserve in Torrey Pines State Beach, where it then empties into the Pacific Ocean.

(pictures/video of the area)

Urban runoff into the creeks is the {main issue of pollution} main pollutant in the Los Peñasquitos Watershed.

Question: what specific pollutions are there?
(interview of pollution [introduce spye with text on screen], creek and lagoon)

All of the runoff from the storm drains contribute to pollution in this watershed. Unfortunately, many residents do not know about storm drain pollution and still continue to allow the pollutants into our cities' storm drains. Even a simple act of washing a car on a residential driveway can bring many different pollutants into the watershed. Other pollutants in the Los Penasquitos watershed are sediment toxicity, sedimentation, too much of chemical compounds and high levels of bacteria.

(pictures of runoff, trash, examples of interview)

We tested the La Tortoala Creek in our watershed to see if there were dangerous bacteria in it. Indicator bacteria are bacteria that indicate the presence of more dangerous pathogens. This bacteria is what we tested for in order to see if there were more harmful bacteria in the water. The indicator bacteria we tested for are Total Coli form, E. coli and Enterococci.
We used the IDEXX method and the following reagents; Colilert-18 and Enterolert. In order to test for the presence of the indicator bacteria. This is done by:

Take a water sample
Water sample is then prepped for testing
Tested
After specified time in an incubator, we read the results

(sampling and testing footage)

The results were:

Sample 1
Colilert-18 test was
Total Coliforms 12033/100ml
***E. coli* 10/100ml**
Enterolert test was
Enterococci 31/100ml

Sample 2
Colilert-18 test was
Total Coliforms 12033/100ml
***E. coli* 20/100ml**
Enterolert test was
Enterococci 31/100ml

After comparing results of the test to the EPA standard for indicator bacteria that the E. coli and enterococci levels were safe, but the Total Coliform exceeded the standard. Meaning that the Total Coliforms are at a dangerous level in particular section of the Los Penasquitos watershed.

(indicator bacteria testing pic/videos, also sample collections)

question: what helps stop pollution?
(interview w/ Spye/ what he says to help reduce pollutants)

As you can see, overall the bodies of water in the Los Peñasquitos Watershed are safe, but may have some areas of high bacteria level that exceed the EPA standards. We all can do our part to mitigate this by being conscious of what we allow to flow into our storm drains. Don't wash your car on your property; take it to a car wash. That's just one simple way you can make sure pollution is minimized. Be aware what you do affects the world we live in!