

"I have a ton of respect for the ocean it's like a friend so you've got to treat like a friend or better. Think about it, the ocean is the source of power; it gives us food; it gives us life, a place to play, it makes our weather and gives us barrels."

"What's up! I'm Sal Masekela and I'm here with some of my favorite surf bros to tell you a story about the water and our coast. And I've had the privilege to both living and surfing here on the coast for over half of my life but I'll tell you something, things are changing."

"You see, many of my favorite surf spots when I was a kid they are not so great anymore. Why? Because they're polluted. My favorite beaches disappearing with little or no sand to even kick it on anymore and believe it or not a lot of problem has to do with us and our disruption of rivers and streams and our watersheds."

"Water is the gift of life here on earth. It quenches, it cleans, and to so many, it satisfies. 70% of the earth surface is water and believe it or not so is 60% of our bodies. So, it's no mystery why we, people, are naturally drawn to water. It surrounds and represents our very existence."

"The ocean is the heart of all water on earth. Every drop in rivers, in lakes, or in the ground was once in the ocean and will return there again. What it carries with it is up to us though and today, Mother Ocean is trying to tell us something, her voice, her subjects."

So what is a watershed anyway? One thing is for sure, it's more than a single river or stream. A watershed is an entire drainage region where sources of water like rainfall and snow melt drain to a larger water body usually the sea."

"They include drainage channels through rivers, streams, and the ground. Natural filters and wetlands and estuaries and sinks in lakes and oceans where rivers empty. Their driving force? The Hydrologic

Cycle. We can think of the water cycle as a huge circle; an exchange of water from ocean to land and back again. It all begins miles offshore with heat of the sun that evaporates surface water into storm clouds. As clouds saturate with water, winds carry them over land where they release water in the form of rain or snow in a process called precipitation. As water reaches the ground, some is stored in the mountains as snow until warm temperatures melt it in the spring. Some soaks and infiltrates the soil as groundwater nourishing both the roots of plants and underground aquifers and the rest runs off over the ground surface through weathered grooves to streams and larger rivers into a collecting body of water usually the ocean."

"Like veins in your body circulate blood from your heart to your limbs and back again, watersheds circulate water from the ocean to the land along their path they carry sand that deposits in streambeds and coastal beaches. They carry minerals and nutrients that feed plants and animals and last but definitely not least they carry gunk. Pollutants of every variety from cities, farms, industrial sites, and other human developments. So within our watersheds we are the critical element and our daily decisions affect their health and the health of the coastlines in which they lead, both in our oceans and our beaches."

"In a natural watershed, a beach begins miles away from the coast where rivers and streams weather and shape the land chipping chunks of earth called sediments from riverbanks, rocks, and other landforms. When rivers rush, they carry these sediments from the highest mountains downstream. On their way, sediments roll and tumble into fine grains of sand until they reach the coast where they deposit into deltas and river mounts. Then from here, ocean currents take over usually in one common direction spreading the sand to beaches along the shoreline. The more sand reaches the coast, the wider our beaches get."

"Did you get all that? Okay. Now that we've gotten the particulars out of the way, let's have some fun. To better understand our watersheds

and the way we interact with them, we are going to track a raindrop from it start at the top of the watershed all the way down and out to its outlet on the coast."

"I have enlisted the help of some special friends; so, I know you will enjoy this. Let us start it off from the mountaintop."

"Hi I'm Tara Dakides coming to you from my home, the mountains which is where I spend most of my time and it's just so happens to be the high point of the watershed. The snow I ride in every day is water too. It's just frozen from higher elevations and colder conditions. In winter, mountains like these catch storm clouds and all the snow they can dump and over the season snow accumulates in what we call, snow pack. As much as I wish the snow pack would stay here all year, it doesn't and when it melts in the spring and summer, it drains just like rain from here in the mountain streams to larger river basins in the valley and it eventually to the ocean. It's hard to believe that this very snowball can find its way to the ocean that can be hundreds of miles away, but believe me when mountain snow melts, there's nowhere to go but down so if I litter or pollute the slopes way up here, it can end up way down there where it becomes someone else's problem."

"It's really important to understand that no matter where you are, you are in a watershed; your city, your house, your school, all of it. Okay! So the mountains were cool right! But now, let's take to the opposite extreme to a place where we assume it affects our watersheds and coastlines the most, the city."

"Hey hey Tony Hawk here and welcome to my playground, the urban jungle. Did you know that by the year 2010 more than half of the US population will live within a driving distance from the coast? That's right, coastal cities like this are growing fast and so is their impact on rivers and coastlines from what we call urban runoff. You see, cities are a part of the watershed too, they're just paved over."

I will admit, smooth solid concrete is great for skateboarding but when it rains here, storm water rushes over the surface in large amounts picking up tons of gunk along the way like auto fluids and litter from in our streets, chemicals and waste from lawns and gardens, contaminated soils from construction sites, and even pollution in the air. Where does it all go? Right here, in the storm drains like this one, to concrete channels, into rivers, and directly to the ocean. No sewage treatment like the waste water you flushed down from the toilet or pour down the drain, just stinky raw pollution. Urban storm water is a major polluter of rivers, lakes, oceans, and estuaries. So, next time you think about littering in the street or pouring motor oil down the urban storm drain, think again because it is all got to go somewhere."

Brad Gerlach

"And more likely than not, I'll be swimming in it.

Three and quarter of a million tons of oil and fourteen billion pounds of garbage enter the world's oceans every year and that's way too much, and in the US alone, sewage treatment plants add additional five point nine trillion gallons of wastewater. Whether it's surfers, beach goers, precious wildlife, it's just kind of like, here we go."