URBAN RUNOFF REFLECTS OUR LIFESTYLE

by Ventura County Supervisor Linda Parks, November 2010

While they say we are what we eat, the watercourses that drain from our cities also reflect what we eat. Recent data collected by the City of Oxnard found that besides a predominance of plastic bags and cellophane, most of the trash in their creeks and stormdrains come from paper and styrofoam containers from McDonald's, Carl's Jr., Papa Johns, Taco Bell, KFC, Jack in the Box, Burger King, El Pollo Loco, Toppers and Circle K.

Armed with GPS equipped Blackberries, a group of young men and women hired by City Corps work under contract with the City to remove trash from their stormdrains, log in the types and sources, and where it was collected. Funds for the program are made available from fines paid to the Los Angeles Regional Water Quality Control Board.

In pie charts and bar graphs it is clear: of the 8.3 tons of trash the Oxnard City Stormdrain Keeper Program has cleared this half year, McDonald's was the trash leader. Budweiser and Miller beer were the drink of choice, (though Miller was a distant second in the industrial storm drain), and in one of the four open channels cleaned by City Corps plastic bottles for drinks such as Gatorade, Aquafina, Arrowhead, Coke and Power Aid beat out beer bottles. (View the full report at http://conference.plasticdebris.org/whitepapers/Mark_Pumford.doc)

While the intent of identifying the trash in Oxnard's channels is to find ways to keep it from entering them, for example adding trash cans for customers or covers on trash bins, the data also say something about society-- both in what we eat, and how we pollute.

What does our trash tell us? Do areas of comparable urban densities have equivalent tonnage of trash in their waterways? One thing that has been found to be consistent in the behavior of those who pollute is that they are more inclined to litter in areas that are neglected and already have trash.

In addition to trash from fast food and drinks, the residual of drugs people take also end up in our waterways. Scientists are finding that the effluent coming out of sewer plants into our creeks and then to the ocean contains a medicine chest of minute amounts of pharmaceuticals that can't be filtered out by conventional sewer plants.

Little is known about the impact pharmeceuticals have on aquatic life. Some of the commonly found drugs in our waterways include Viagra, Cialis, Xanax, Prozac, Ritalin, Adderall, Lipitor, estrogenic hormones, antibiotics, beta blockers, tranquilizers, anti-epileptics, drugs for bi-polar disorders, and anti-inflammatories. As with the types of trash found in our creeks, pharmaceuticals in creeks also vary by area. In some areas there are higher amounts of anti-depressants while other areas have more estrogenic hormones in their waterways. Such things as age of population (for example elderly people in the United States often take more pharmaceuticals on average) and socio-economic factors can be indicators for drugs found in urban watersheds.

Scientists expect a 20-fold increase in the types of drugs on the market, which in turn will increase their presence in our sewer systems and from there as effluent into creeks, rivers and ocean. California is particularly vulnerable to pharmaceutical contamination because many creeks contain sewer effluent flow. Treating the wastewater for known pollutants is critical for the aquatic life in the creek.

Of course there are other pollutants in our creeks that are not associated with what we eat, drink, or take for our ills. However, seeing society's practices reflected in the health of our environment helps us better understand the close connection and our need to try to improve water quality in our waterways.