2010 Storm Activities

Although this was an exceptional year as far as storms go, the following pictures and video will show what our department deals with on a regular basis. The heavy storms brought with them high surf, and literally thousands of tons of debris. The high surf erodes away at our shoreline, while the debris gets deposited all along the oceanfront.

This presentation will show a few of the main services that our Beach Maintenance crew performs during the storm season.

- The first you will see is the beach rebuilding program, which helps in protecting our beachfront community.
- Second will be trash and debris removal by our staff.
- Third will deal with storm drain run-off.
- The final service will show how our Queensway Bay crew deals with the debris in the water in Rainbow Harbor.

Beach Rebuilding

A combination of high tide and storm surge hit our beaches at a heavy rate this season. These powerful forces of nature combined to deteriorate the oceanfront along the peninsula. Due to the coastal currents, the peninsula is the hardest hit area along our beach. Sand is pulled off shore and deposited back on our beaches around the Claremont parking lot. This sand is then loaded and trucked back to the peninsula, and redistributed along the beach. In doing this, we are able to push sand out towards the ocean and maintain around 80 to 100 feet of beach on the peninsula.

Debris and Trash Removal

The debris that is washed up on our beaches is mostly vegetation. It accumulates at the high tide zone and is removed by using large rakes that gather the debris into piles. The piles are then taken to the shaker, which separates the debris and sand. At this time, the debris is loaded on trucks and hauled off to the dump. The sand is reused in the beach re-nourishment program. By the time this fiscal year has ended, we will have removed and disposed of nearly 16,000 tons of debris at a rate of about $50 a ton, or about $800,000.

Storm Drain Run-Off

The beach bluff area has ten storm drains that empty onto our beaches. These drains bring thousands of gallons of water from our city streets onto the beach every year. You will see what they look like during a storm, and what occurs when they overrun our diversion channels. During the winter months, staff prepare for the run-off by creating these diversion channels to help in the water, which minimizes damage to our city's beach residences, and protect the bike path from undermining.

Los Angeles River Debris

The Los Angeles River is the main facilitator of all our debris issues. The majority of the debris that moves down the river from upstream is washed out to sea, but as you have seen, much of it is deposited on our shores and in our marinas. The Shoreline Marina is located right at the mouth of the Los Angeles River. Maintenance crews work nonstop during the storms, in an effort to keep as much of this debris out of the marina. Staff has designed and maintains a debris boom that spans the opening of the marina, and does an excellent job of controlling the debris. Unfortunately, the marina needs to stay open for boating traffic, so the boom is opened for boaters, both private and commercial, that need to access the marina or open water. By opening and closing the boom, you will see that large amounts of debris are able to maneuver through the boom and into the marina. A conveyer trash vessel removes most of this debris, but much of it can only be reached and removed by using pool dip nets.

Funding

Our department has applied for and received funding from the Los Angeles County for the removal of debris. This has been going on for 16 years. This funding caps out at $500,000, of which we have used every year it has been awarded. On an average, we have been spending over $600,000 for these storm costs. This amount includes cost of debris disposal, along with equipment and man-hours to maintain an accessible and clean beach. With the storms and amount of debris this year, we are expecting to spend close to $1 million dollars on the beach clean up.