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**PRESS RELEASE  
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## **Mission Creek Storm Sampling Reveals a Dirty Secret**

During Santa Barbara's last rainstorm, while the rest of the town was sleeping, Santa Barbara Channelkeeper volunteers were braving the cold, wet weather in pursuit of information that may help play a role in solving Santa Barbara's beach pollution problem. This "Mission Creek Storm Sampling" project aimed to answer critical questions about bacterial contamination in our creeks and ocean during a storm.

Together with the help of UCSB researchers and the City of Santa Barbara, Channelkeeper staff and volunteers collected samples once before the storm, at 1-hour intervals during the storm, and at various, more extended intervals for the next 3 days after the storm had passed. The samples were analyzed at Channelkeeper's in-house lab for Enterococcus bacteria, the primary indicator recommended by the US Environmental Protection Agency for gauging the suitability of ocean beaches for water recreation.

Contamination of beaches occurs mostly during and immediately after storms. Stormwater runoff carries more pollutants to our local waterways than any other source. With this project we attempted to pinpoint where most of these bacteria enter Mission Creek and how levels of bacteria in the creek are reflected in concentrations at the beach. Nine sites were sampled, spanning from the upper Mission watershed at Skofield Park all the way down to the beach.

The results of the 4-day testing clearly tell us three important things: 1) stormwater runoff causes an increase in Enterococcus levels at all sites; 2) this increase becomes more dramatic as Mission Creek flows through more urbanized areas; and 3) the impact of stormwater runoff is felt not only in the creek, but also in the ocean.

During the storm, Enterococcus levels rose from "pre-storm" levels at all sites, and at several sites this increase was very dramatic. The most extreme example of this was at the Montecito Street site, where Enterococcus levels rose from 145 MPN/100mL before the storm to 26,130 MPN/100mL at the peak of the rainfall, less than 7 hours later. This was over 250 times the limit for safe swimming and surfing, which is 104 MPN/mL (these units stand for "most probable number of bacteria per 100 milliliters of water"). Of the 114 total tests performed, 82% failed this standard. On the last day of sampling, Enterococcus levels at all sites had fallen back down to normal levels.

Enterococcus levels were much higher in the lower, more urbanized reaches of the watershed. The results clearly show that as water flows down from the foothills and passes through increasingly developed areas, it becomes more and more contaminated due to urban runoff. For example, during the storm and the day following, average Enterococcus levels steadily increased from 67 MPN/100mL at Skofield Park (the uppermost site) to 4,488 MPN/100mL at Montecito Street (the lowermost site).

During the storm, there was a clear increase in Enterococcus levels in the ocean near the creek mouth. Pre-storm levels at the beach sites were negligible (<10 MPN/100mL, the lowest possible reading) but as the rain came down, levels rose to as high as 2,110 MPN/100mL (more than 20 times the accepted safe level). As with the creek sites, on the last day of sampling Enterococcus levels at the beach had fallen back down to normal levels.

A full report with all results will be available within a month. Graphs, maps, and photos are available upon request.

Santa Barbara Channelkeeper is a nonprofit 501(c)(3) organization. Our mission is to protect and restore the Santa Barbara Channel and its watersheds through enforcement, citizen action, and education. For more information on our organization please visit [www.sbck.org](http://www.sbck.org).