The Santa Monica Bay Watershed

The Santa Monica Bay watershed drains a 414-square-mile area. Land uses in the watershed are 33 percent residential, 10 percent commercial/industrial and 57 percent open/undeveloped. The watershed comprises 28 drainage basins — the largest of which are Ballona and Malibu Creeks. About 70 major outlets (storm drains and creeks) flow from the watershed, which spans from the Ventura County line to Point Fermin on the Palos Verdes Peninsula.

- *Open/Undeveloped*
- *Single and Multiple Family Residential*
- *Commercial, Light Industrial, Public Land and Other Urban*
- *Drainage Basin Boundaries*

Pollution at its Source: Land Use and Urban Runoff

Improving our understanding of urban runoff will help us to better manage it at its source. In order to gain better insights into this complex issue, an SMBRP-sponsored study, conducted by a UCLA/Woodward-Clyde Consultants team, is assessing the amounts, types, and sources of pollutants carried by streams and storm drains to Santa Monica Bay.

Land use is one of the most important factors in determining concentrations of pollutants in runoff and is therefore a major focus of this investigation. The type of land use influences the total volume of runoff by either increasing or decreasing the proportion of impervious surface area (the more impervious area, the greater the runoff). Available water quality and quantity data, along with an evaluation of the characteristics of the drainage areas (size, slope, soil type, rainfall distribution and land use) within the Santa Monica Bay watershed will also be used to estimate pollutant loads.

The study will also develop a comprehensive storm drain monitoring program, identify storm drains with the most significant pollution problems, and recommend a practical set of Best Management Practices (BMPs) or control measures that should be implemented in those problem areas.