

# The Big Storm Brewing in San Diego: *Residents Face Drastic New Storm Water Legislation*

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Storm water runoff is no longer an issue causing headaches only for real estate developers; it's become an issue for everyone, particularly for the 2.8 million residents of San Diego, California. • The increased scope of recent regulations implies that storm water mitigation is something for which every citizen of San Diego County, from municipalities to businesses to homeowners, will be held accountable, whether or not they are aware of the ramifications.

The San Diego Regional Water Quality Control Board (RWQCB) voted last February to adopt the Municipal Storm Water Permit, representing the largest, most prescriptive set of water and land use regulations to hit any municipality in the U.S. in the last decade.

By February 2002, all municipalities of San Diego County— an area that covers a landmass of 2.7 million acres (4,260 square miles) and includes 18 incorporated cities, the Port of San Diego, and the City itself— must have RWQCB-approved urban runoff management plans in place that adequately addresses all directives of the storm water permit, or face potential enforcement from the RWQCB or a third party.

For each municipality, this calls for immediate establishment of legal authorities, development of land use ordinances for both commercial and residential sectors, public outreach and education, and increase of manpower to adequately follow through with enforcement. These measures will cost time and money, both of which San Diego is struggling to find.

As part of the County's Clean Water Program, ten different committees (comprised of local officials and interested parties) have been formed to analyze different portions of the permit and develop models that will guide each municipality in establishing effective urban runoff management plans by the February 2002 deadline.

## ECONOMIC IMPACT

The impact on San Diego's pocketbook remains to be determined, and each municipality is scrambling to plan for the cost and expense of permit compliance. Costs for the city alone to implement and enforce the permit could total \$25 million to \$30 million over the next five years, ranging from \$500,000 per year for smaller municipalities, to upwards of \$1.5 million per year for larger districts.

The biggest issue for municipalities is determining where the funding will come from to implement the programs required by the permit. Some municipalities are shifting funds from their general fund to allot for a storm water fund, while others have put in a request to the state for more funding.

San Diego municipalities also are looking to increase clean water fees on water utility bills. For example, one such municipality was considering a clean water fee increase from \$1.38 to at least \$2.00 each month for residential units totaling 2,000 square feet or more. For businesses, the fee could double, from \$2.62 to at least \$5.00 each month. In any case, funding will continue to be a source of controversy.

## BREAKDOWN OF THE PERMIT

The permit imposes land use restrictions and guidelines called Standard Urban Storm Water Mitigation Plans (SUSMPs) that address four major compliance areas for San Diego: 1) development and redevelopment; 2) the "Big Seven," which are seven regulated areas of establishment; 3) the "Catch All;" and 4) commercial and residential design requirements.

## DEVELOPMENT AND REDEVELOPMENT

SUSMPs will affect several major types of local developments: 1) structural development, including construction or installation of a building or structure such as a restaurant, gas station, house, mobile home, or subdivision; 2) creation of impervious surfaces, including roads, driveways and parking lots; 3) and auto repair shops or dealerships, where pollutants are at particularly high levels.

Those in the areas of redevelopment will be affected as well. For instance, redevelopers expanding existing impervious surfaces by 50 percent or more will have to comply with SUSMPs.

Other redevelopment situations where SUSMPs apply include: the expansion of a building footprint, or addition to or replacement of a structure; structural redevelopment, including increase in gross floor area, or exterior structural remodeling; and land disturbing activities, including any activity on or adjacent to an already developed site, that may contribute to runoff.

## THE BIG SEVEN

There are seven types of sites that SUSMPs will regulate: 1) any residential subdivision with ten or more units; 2) any single-family hillside residence; 3) any 100,000-square-foot or more commercial development; 4) automotive repair shops, including dealerships; 5) any retail gasoline outlets; 6) any restaurants; and 7) any parking lot having 5,000 square feet or more or at least 25 parking spaces.

Businesses that fit into any of these seven categories will be required to capture the first 0.60 inch of storm water from the first rainstorm of the season, and either treat or infiltrate it. Site owners and developers can potentially lose ten percent of land that must be set aside to capture that water via retention basins or restructured impervious surfaces. Some estimates have projected a land loss as high as 20 percent.

## THE "CATCH ALL"

The "Catch All" category includes any business or personal property that the major regulated areas do not specifically encompass, including any area of special or significant biological, natural, or ecological importance, as dictated by the California Resources Agency.

**Erosion control:** Use of sandbags in hilly areas of a construction site can help reduce flow velocities and erosion of exposed soil.



**Stabilized Slope & Construction Areas:**  
Mulching stabilized the slopes of this construction area in San Diego.

It literally “catches all” questionable, or simply overlooked, areas the storm water permit may not address specifically. People in these affected areas, who actually have taken the time to study the permit and tried to abide by it, may still be punished for unknowingly violating a prohibition of the permit.

#### DESIGN REQUIREMENTS

Site design refers generally to the goal of creating new developments that limit the amount of runoff from the site. Redeveloped sites are also candidates for better site design, but can be limited by the original configuration.

Those in affected areas will also be required to follow general and specific design requirements. General requirements include limiting post-development peak storm water flows to predevelopment rates; minimizing to the “maximum extent practicable” storm water runoff containing “pollutants of concern,” including Best Management Practices (BMPs) to reduce siltation; and stenciling storm drains to discourage illegal dumping and prohibit outdoor storage areas. Special requirements also will be placed on solid waste storage areas, such as special containment for all trash containers.

The SUSMP obligation also will be transferred to future property owners through legally enforceable maintenance and repair agreements, funding guarantees and other means.

Specific design requirements include the incorporation of storm water treatment systems for loading docks and machine repair areas. Additional design requirements apply to restaurants, gas stations, auto dealerships and repair shops, and commercial developments over 100,000 square feet.

Site design techniques to decrease storm water pollution include limiting the amount of impervious surface, retaining rainwater and irrigation water on-site, planting drought-tolerant vegetation, and disconnecting rooftops and other impervious surfaces from straight connections to the storm drain.

In essence, only rain may legally enter storm drains. Construction site owners and developers are expected to keep storm drains and other discharge points clear throughout the entire construction site, including perimeter areas where surface runoff exits the site.

#### SOCIAL IMPACT: SMART GROWTH AND ALTERNATIVES

A main concern surrounding SUSMPs is their impact on “smart growth”— encouraging businesses, developers, and corporations that are environmentally aware, socially responsible, and can attract more business to the area to relocate to San Diego.

The California Storm Water Task Force and California Department of Transportation estimate that the cost of building such systems for compliance, on a statewide basis, would be more than \$14 billion, not including maintenance costs. That expenditure is not spread across the state (where it would average about \$500 for every Californian). Instead new developers and business owners are hit with the brunt of the costs.



*Photos courtesy of the San Diego Regional Water Quality Control Board (SDRWQCB)*



As the goal is to improve and increase smart growth in San Diego, the intensely strict and expensive guidelines of the imposed SUSMPs may deter new business and new development that would otherwise be an asset for smart growth. It's definitely something to consider.

Some argue that storm water utility districts (SWUDs), of which more than 400 across the US are currently in place, offer a way for an entity other than an individual municipality to be held responsible for maintaining compliance and enforcement. SWUDs can potentially offer better, more cost-effective technical options for controlling runoff, and they have the ability to spread the responsibility and cost around fairly.

SWUDs are not a replacement for SUSMPs. Because SWUDs are organized on a watershed-by-watershed basis, authorities within a particular watershed (the San Diego Basin has nine) can develop SUSMPs that meet the specific and unique needs of that watershed. SWUDs could then accurately identify and implement BMPs that would most effectively and efficiently prevent storm water pollution.

In addition to SWUDs, another proposed alternative to SUSMPs is "source control" of BMPs. "Source control" involves a plan that improves already used BMPs by ensuring the appropriate BMP is used to effectively address a specific runoff concern.

### ONLY TIME WILL TELL

The obvious intent of the San Diego Municipal Storm Water Permit is to improve water quality. Since urban runoff is a major contributor to water quality degradation, there will be some improvement to water quality, assuming that compliance and enforcement tools can be adequately assessed and measured.

The problem is that water quality improvement will not happen as fast as the public may expect or want. Other than the less-strict Los Angeles permit, there exists no set of standards against which to measure what can be expected in terms of water quality improvement for San Diego.

Data will be collected and analyzed over the next five years, and at the end of the fourth year, the RWQCB will begin drafting a new permit based on that analysis, which will gauge how effective each municipality was in implementing and enforcing the permit.

The overall impact on residents of San Diego will be substantial. The storm water permit allows for an unprecedented accountability of private citizens by other private citizens to keep storm water clean. It essentially gives a third party the ability to sue. Residents will be able to sue other residents for on compliance, or they can sue their municipality for not doing enough in terms of enforcement.

Consequently, the next five years could bring an onslaught of litigation to San Diego. Because the permit is narrative and prescriptive in tone, it carries a certain flexibility for interpretation. Any party that assumes it is in compliance based on its own interpretation could easily misinterpret vague or ambiguous definitions. Everyone—from developers, property owners, and private citizens to the municipalities themselves—faces the risk of unprecedented legal liability exposure from a third party.

As many business and property owners will look to environmental consultants to help assess their sites and implement the most effective BMPs to comply with the coming SUSMPs and other permit requirements, the next five years will show the environmental consulting field branching out into different areas of specialization—from firms working with municipalities, to the development of inspection and enforcement programs, to those specializing in compliance for either commercial, residential, or new development and construction industries.

The overriding dilemma lies not in achieving cleaner water and fewer beach closures, which is the true goal. Rather, it is the challenge of balancing cost and expense with what is the most logical and reasonable means of achieving such a goal from within a particular municipality. In the meantime, municipalities of San Diego can avoid costly penalties and prevent environmental damage by complying with the SUSMP guidelines as directed by the coming Municipal Storm Water Permit.



**French Drain:** This site shows how a french drain can be used to divert storm water or reduce its flow impact on a down slope.



**Sediment Pond:** A sediment pond is used to capture runoff and allows sediment to settle before water is discharged to storm drains.

*Photos courtesy of the Army Corp of Engineers (ACOE)*