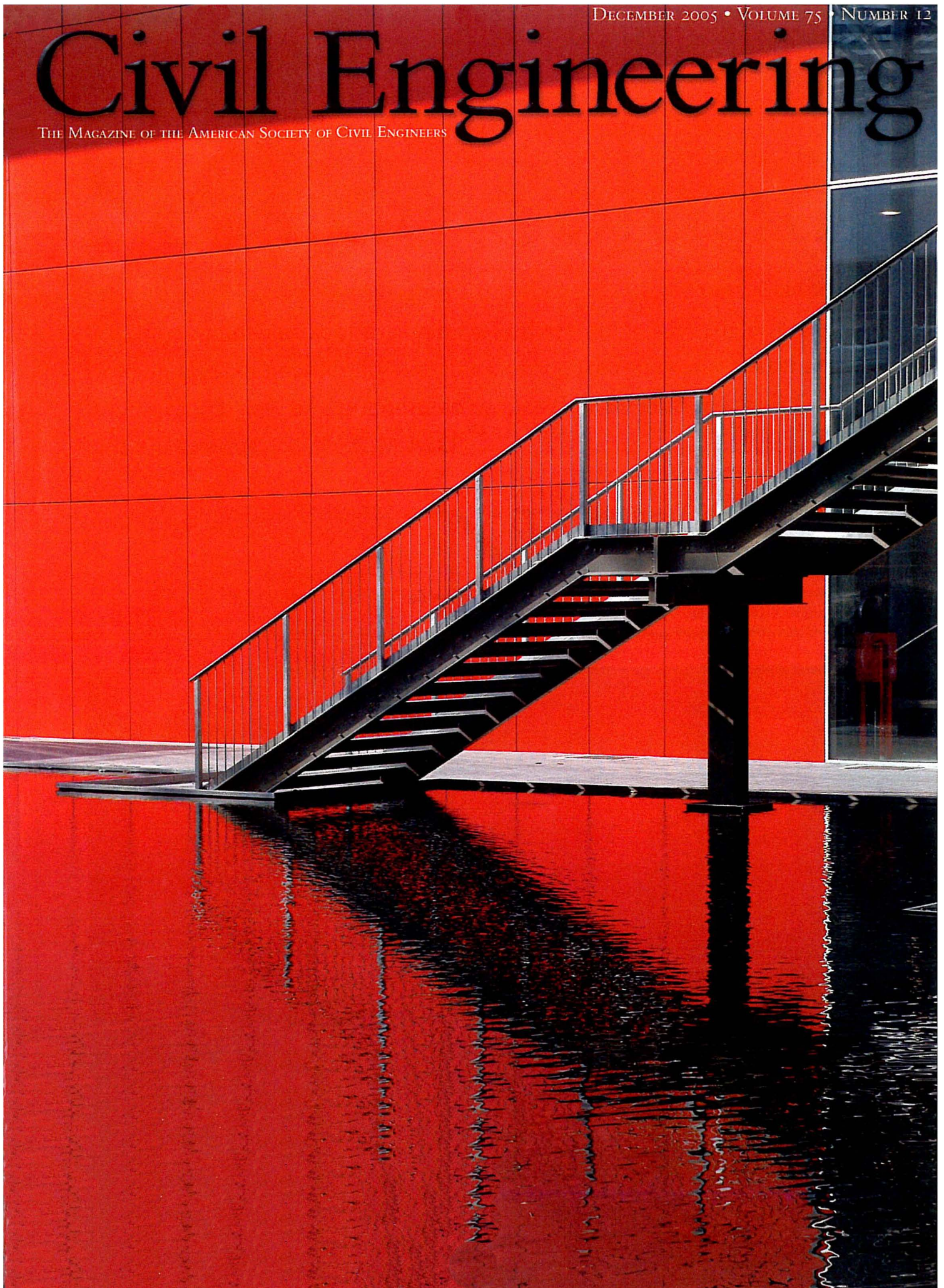


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Seaside Solution

Salt Creek Ozone Disinfection Urban Runoff Treatment

Salt Creek Beach, Dana Point, California

Due to contaminated urban runoff from the Salt Creek Watershed, bacteria concentrations were far exceeding both Federal and State standards at Salt Creek Beach, preventing swimmers from enjoying this beautiful stretch of coastline. The polluted water from nearby residential and light commercial zones carried fertilizers, animal waste, bacteria and detergents to Salt Creek's outlet to the Pacific Ocean.

After much analysis, engineers selected a new solution never before applied to tainted urban runoff: Ozone Disinfection. An intake grate captures flows, which pass through a continuous deflective screening device to remove coarse debris, while smaller pieces are trapped by basket strainers. Additional suspended solids are removed by dual-media filters. The influent is then pumped to the \$6.7 million ozone treatment facility, housed in a 2,000 sq. ft. Spanish-style structure that blends well with its high-end surroundings.

In operation since November 2005, the fully automated treatment system of three ozone generators is capable of withdrawing, treating and returning a maximum creek flow of 3,785 liters per minute. After treatment, the effluent is discharged back to Salt Creek, where it enters the ocean. Weekly City monitoring at the discharge point and along the beach confirm bacterial levels are now significantly below established standards. Additionally, some of the water is diverted and reused to irrigate a nearby golf course and other landscaping.



Killarney Carrozzani/PBS/CTV



Courtesy of Kenneth and Gabriella Aldeman/www.CaliforniaCoastline.org

Salt Creek extends inland for approximately 5 mi (8 km). As can be seen, the quality of its water—which includes runoff from urban areas—is inseparably linked to the health and safety of nearby beaches. The ozone treatment facility will handle all flows during the dry season.