

# EROSION CONTROL

## New Containment System Prevents Runoff of Hazardous Concrete Waste Water at Construction Sites

Spurred by increased enforcement of US Federal NPDES requirements, IECA Emerald Member Elk Grove Waste Management, Elk Grove, Calif., and its sister company, Concrete Washout Systems, Inc., have developed a unique solution to a tough waste disposal problem that has long plagued the concrete construction industry – how to prevent contaminating soil and water when washing out ready-mix and pump trucks at construction sites. It's a portable, self-contained watertight bin that captures and contains this caustic, corrosive wastewater for transport to a recycling or disposal site.

The patent-pending Concrete Washout System, which was introduced last year, is the brainchild of the company's three principals: Mark Jenkins, the firm's president, and the two vice-presidents, Kevin Mickelson and Jim Basinger. Unlike conventional practices, this system eliminates any illegal discharge of concrete wastewater on site and cuts cost significantly, compared to other practices, reports Roger Engelsgaard, vice president of operations.

"The Concrete Washout System is a Best Management Practice (BMP) that uses Best Available Technology (BAT) to address these problems," Engelsgaard says. "It received the 2004 Environmental Innovation Award from the National Ready Mix Concrete Association for developing a product that resulted in a measurable improvement in environmental protection and was recognized by the Sacramento (California) Environmental Commission for voluntarily exceeding environmental regulatory requirements."

Emerald Membership in IECA will help market the company its system to a broad range of decision makers involved with storm water pollution prevention plans, Engelsgaard notes. "Also, we can join local, regional or national training seminars and classes that are addressing BMPs or BATs and educate professionals that will be using our products on their jobsites," he says.



The collection bin includes folding steel ramps to accommodate almost all concrete pump hoppers, a high-grade plastic interior lining for easier clean out, and is sealed to eliminate any wastewater discharge. Measuring 7.6 m (25 ft.) long, including the ramp, each unit holds about 4.2 m<sup>3</sup> (5.5 cu. yd.) of material. That's enough to contain the washout from about 267 m<sup>3</sup> (350 cu. yd.) of poured concrete, the equivalent of about 38 concrete mixing truck loads and two concrete pumping trucks, Engelsgaard reports.

The unit is delivered and picked up on job sites by the same type of roll-off trucks used by solid waste disposal companies. The wastewater is removed by a vacuum truck and can be recycled or taken to a permitted disposal facility. The hardened material left in the unit can be crushed and recycled for use as a road base.

"The Concrete Washout System replaces outdated washout BMPs, which are inherently flawed," he says. These include washout pits, made from hay bales and lined with plastic sheeting, plastic washout bags, and sludge boxes, which are usually lined with plastic sheeting, too. Tears in the plastic can allow caustic wash water to escape, resulting in an illegal discharge.

Also, Engelsaard notes, building the washout pits and then excavating and reconstructing them after they're full is costly. "Major homebuilders who use our system report it can cut costs by nearly one half, compared to these other practices," he says.

The company is currently seeking strategic partners throughout the United States to operate and distribute this system. More information is available online at: [www.concretewashout.com](http://www.concretewashout.com)

