



## **Taking Control**

Assessing the impact of increasingly stringent erosion control regulations on civil engineering

In light of ever-tightening erosion control regulations, Jason Fukumitsu, principal with Hunsaker & Associates, discussed with Storm Water Solutions Associate Editor Elizabeth Lisican the effects this heightened consciousness is having on his industry, as well as ways to keep up with the changes.

**Elizabeth Lisican:** What are your thoughts on the growing importance of erosion control in civil engineering?

Jason Fukumitsu: We have historically been required to address erosion control in southern California on our grading projects. What has been evolving over time is a better understanding of the appropriate measures to apply in specific situations.

Erosion control applies to our projects in two parts: construction-related activities and post-construction, permanent facilities. The emphasis on erosion control has resulted in engineers needing to be more aware of the impacts to design—even at the conceptual and planning stages—as it relates to permanent improvements.

In recent years, the science has evolved such that the basic standards and practices have become more numerically driven, as well as detailed. Practices that were acceptable 10 years, or even five years ago, may not be accepted today.

Lisican: The U.S. EPA issued the Effluent Limitations, Guidelines and Standards for the Construction and Development Point Source Category late last year. What was your initial reaction to it?

**Fukumitsu:** The state of California has historically been one of the stricter states with regard to erosion control

regulations. The EPA requirements were not a surprise; however, they do differ from the California State Water Resources Control Board's numerical values. Since California's requirements are less stringent, we may have to adapt to new regulations in the future based on the EPA guidelines. California has also issued post-construction requirements that EPA does not require with regard to hydromodification impacts to the watershed.

**Lisican:** What are some of the most immediate challenges the industry is facing, and what are some opportunities as a result of tightening regulations?

**Fukumitsu:** The immediate challenges are updating existing permits, understanding the regulations and the regulators' interpretation of them, and educating our engineers, clients and project contractors.

Opportunities include additional work related to NPDES [National Pollutant Discharge Elimination System] permitting and site monitoring—services we currently provide. Other opportunities are related to hydromodification impacts and analysis for post-construction erosion control. We have tried to incorporate the facilities into the master planning stage to make the facilities amenities or, as a minimum, not a detriment to the overall project aesthetics.

**Lisican:** How can professionals work to quickly and effectively familiarize themselves with the new erosion control regulations they face?

Fukumitsu: Through continuing education and staying abreast of current requirements, attendance at seminars, reading publications and being involved with organizations such as IECA [International Erosion Control Assn]. As an industry, we have been evolving as the science and technology has evolved. We need to constantly be looking for better as well as more practical solutions.

The regulations are a result of overall societal goals and the desire to have a balance between environmental issues, public safety and development. Our challenge as engineers is to provide solutions and project designs that effectively balance these sometimes opposing goals. SWS

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