The 2001-2004 Washington, D.C. lead-in-drinking-water crisis (and its aftermath to the present day) is a unique case study in the history of engineering and scientific misconduct. The multi-year exposure of an unsuspecting population to very high levels of the best-known neurotoxin was perpetrated by multiple government agencies whose founding mission was to protect the public health. These same agencies later published falsified research reports, covering up evidence of harm and justifying ill-conceived interventions that wasted hundreds of millions of dollars and created even more harm.

Aspiring to uphold the duty of scientists and engineers to hold paramount the public good and welfare, Marc Edwards worked alongside collaborators in the public, press and in Congress for over a decade. Their efforts exposed some of the wrong-doing by the agencies and their “hired gun” consultants, who brazenly twisted science to obfuscate the truth of what occurred. These experiences raise concerns about the veracity of “research” conducted and funded by government agencies, especially in crisis situations when public harm has occurred, and highlighted the need for checks and balances on agency power.

Marc Edwards

Charles P. Lunsford Professor of Civil and Environmental Engineering

A nationally renowned expert on municipal water quality, Edwards first won widespread recognition for exposing lead pollution in Washington, D.C.’s public drinking water, and has been hailed as a public health hero for his key role in bringing to light the Flint Water Crisis.

In conjunction with Flint citizen activists, Edwards and a team from Virginia Tech, including both graduate and undergraduate students, coordinated a massive sampling program, which revealed that Flint’s water suffered from serious lead and bacteria contamination. Edwards’ research and advocacy put Flint’s water system in the international spotlight, prompting state and federal intervention and igniting a national debate on water safety.

Edwards has won numerous awards and honors, including a MacArthur Foundation Fellowship, popularly known as “genius grant”; he has been named one of the World’s Greatest Leaders by Fortune magazine one of Time’s 100 Most Influential People.

For more information, contact Dr. Vinod K. Lohani, vlohani@vt.edu.

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