Use of CoAsT (Comprehensive Arsenic Tool) for Small Water Systems Affected by the Upcoming Arsenic Rule

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Abstract

Recent amendments to the Safe Drinking Water Act decrease the MCL for arsenic in drinking water from 50 to 10 ppb. Approximately 3,000 communities and 1,100 non-communities will be affected by the new rule. Economic models predict rapidly increasing treatment costs as the size of the communities decrease. The USEPA estimates that 97% of the affected systems serve 10,000 or fewer people. Thus the rule will place a disproportionate financial strain on small communities. One of the main goals of the Arsenic Water Technology Partnership Program is to provide small communities with tools that can help decision-makers determine economical and technically feasible alternatives. Small communities are in dire need of simple tools that will not add an additional financial strain to their budget. An interactive web-based comprehensive arsenic tool (CoAsT) is being developed at WERC to aid small communities and design engineers in the selection of treatment options. This tool integrates the use of a decision making tree (based on USEPA criteria), cost models (based on economic models by AwwaRF, USEPA and others), a rate-setting program (based on Rural Community Assistance Corporation rate structure models) and relevant technical documentation. The interactive nature of the tool allows the user to tailor the findings to the particular community needs. Typical results include optimal treatment technology, associated costs and financial plan to meet capital and O&M expenses associated with the selected treatment technology.

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