

Guidance document associated with regulations/technologies for the Long-Term 2 Enhanced Surface Water Treatment Rule.

Directly responsible for developing more than 50 percent of the manual

Led presentations and discussions to support

Disinfection Guidance Manual

Carollo developed Tier 1 and Tier 2 approaches used by the USEPA's UV Disinfection Guidance Manual to relate validation test results to inactivation credit for *Cryptosporidium*, *Giardia*, and virus.

As part of the Agreement in Principle for the Stage 2 Microbial/DBP Rules, UV disinfection is included within the regulatory toolbox for obtaining *Cryptosporidium* inactivation credits. To support this decision, the USEPA has prepared a UV Disinfection Guidance Manual (UVDGM). It is the guidance document associated with the regulations/technologies for the Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR). The UVDGM provides dose requirements for *Cryptosporidium*, *Giardia*, and virus inactivation credits, guidance for design and operation, and requirements for UV reactor validation.

Due to its recognized leadership in UV disinfection, the USEPA contracted Carollo to write key sections of the UVDGM, including all of the chapters and appendices on UV fundamentals, validation testing, pilot-scale and demonstration-scale testing, and major portions of the chapters on design, operation, and maintenance. Carollo has also supported stakeholder feedback on the manual by leading presentations and discussions at stakeholder meetings in New Orleans and Washington, D.C.

The USEPA also contracted Carollo to review and update the UVDGM in response to stakeholder feedback on the draft final document.