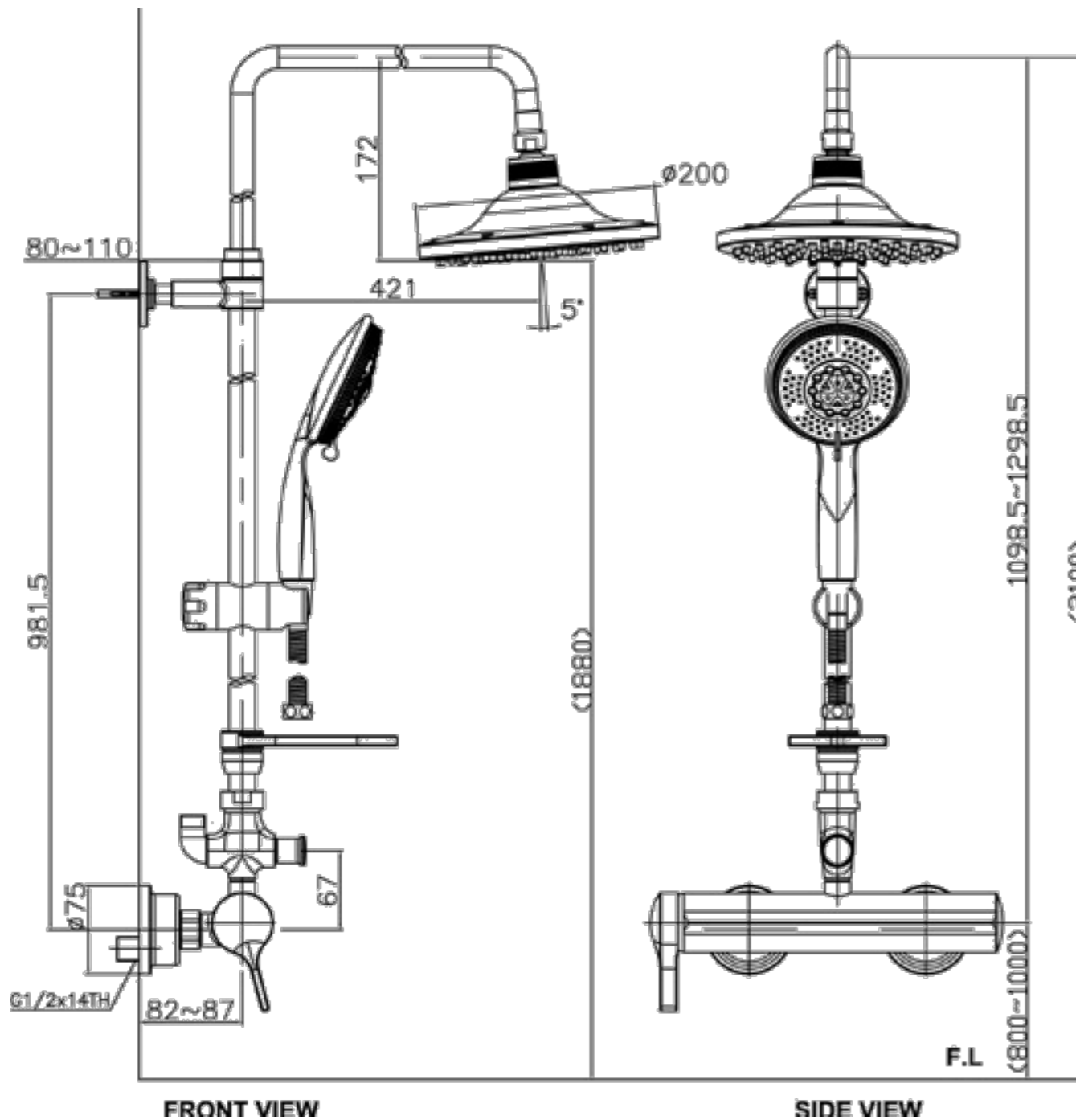


GREEN BUILDINGS

Smart Approaches to Water Quality

Lisa Ragain
Principal Water Resources Planner

Smart Cities DC
October 1, 2019



Overview

- Water & LEED
- Public Health
- Smart Approaches

LEED Water Strategies

Building Design and Construction and Operations & Maintenance

Prerequisites

- Outdoor water use reduction
- Indoor water use reduction
- Building-level water metering

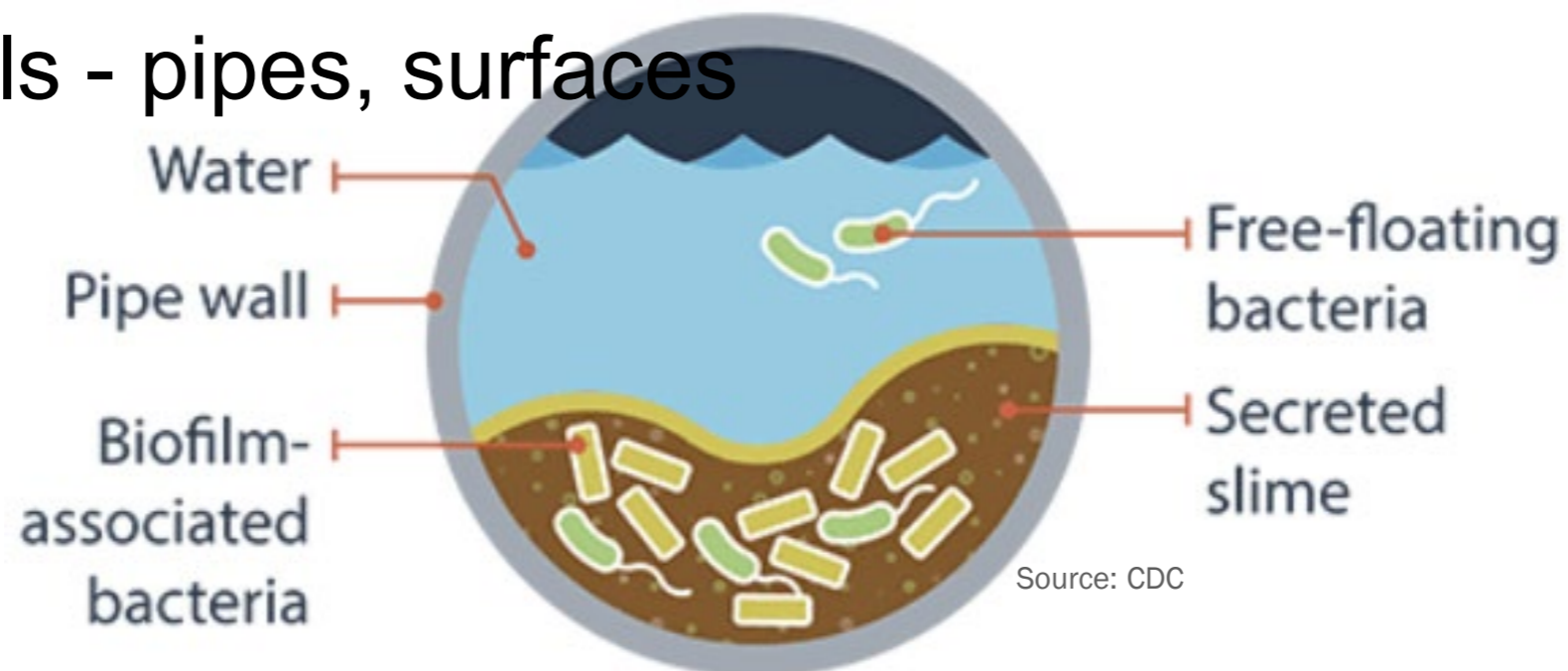
Credits

- Outdoor water use reduction

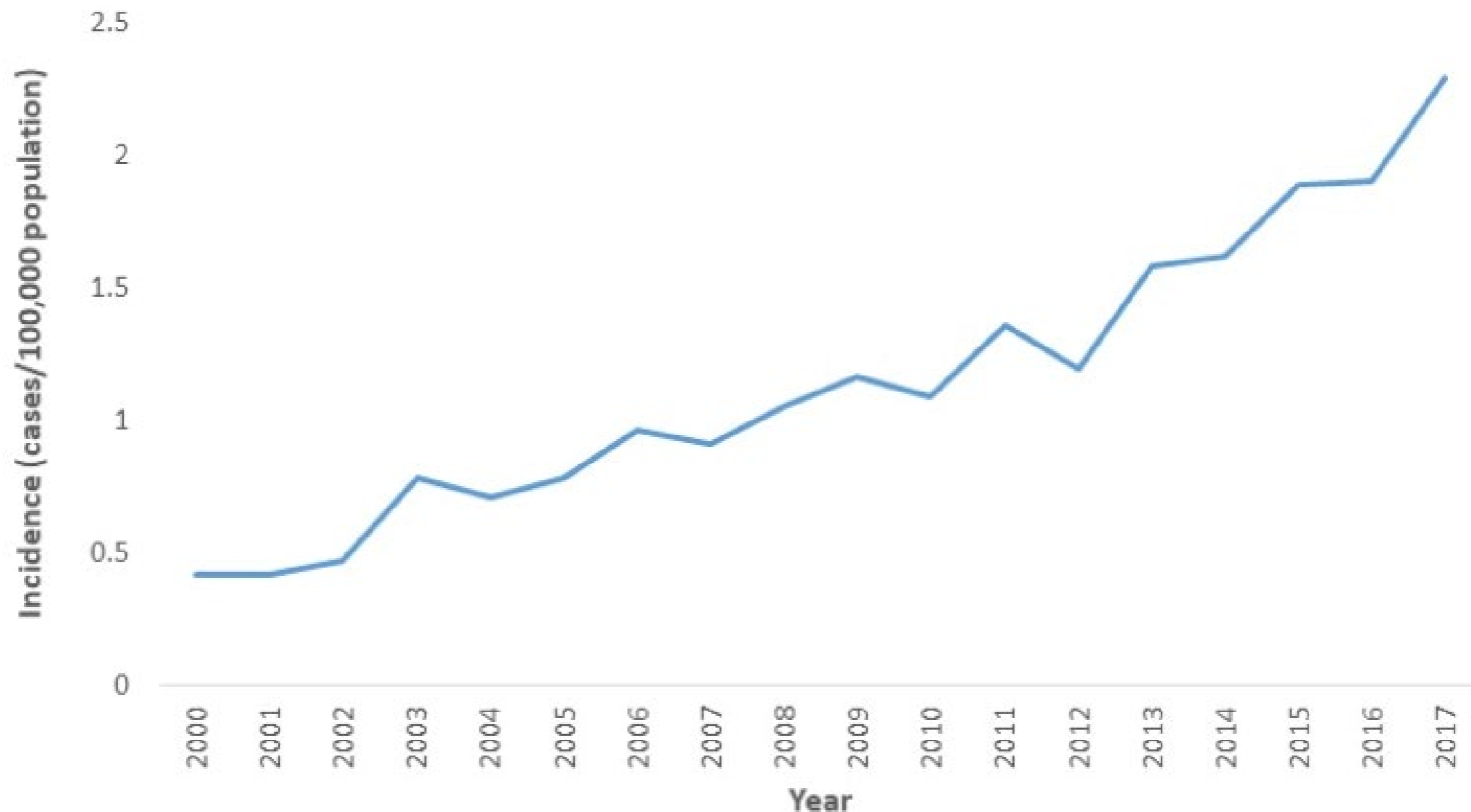


Building Water Management

- Biome
- Disinfection by-products
- Materials - pipes, surfaces
- Scalding
- Emergency Supply



Legionnaires' disease is on the rise in the United States

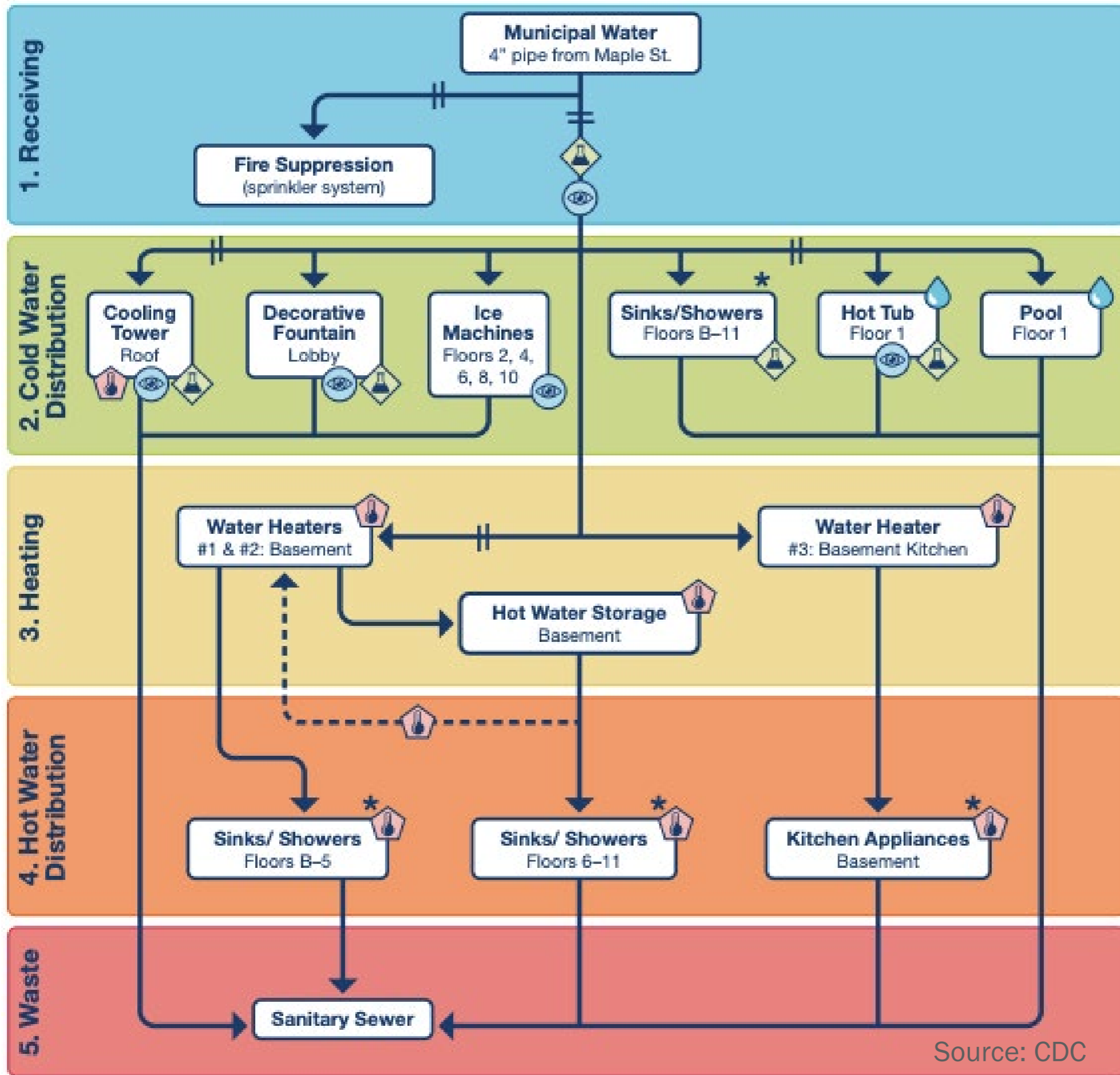


Rate of reported cases increased 5.5 times (2000–2017)



Source: CDC





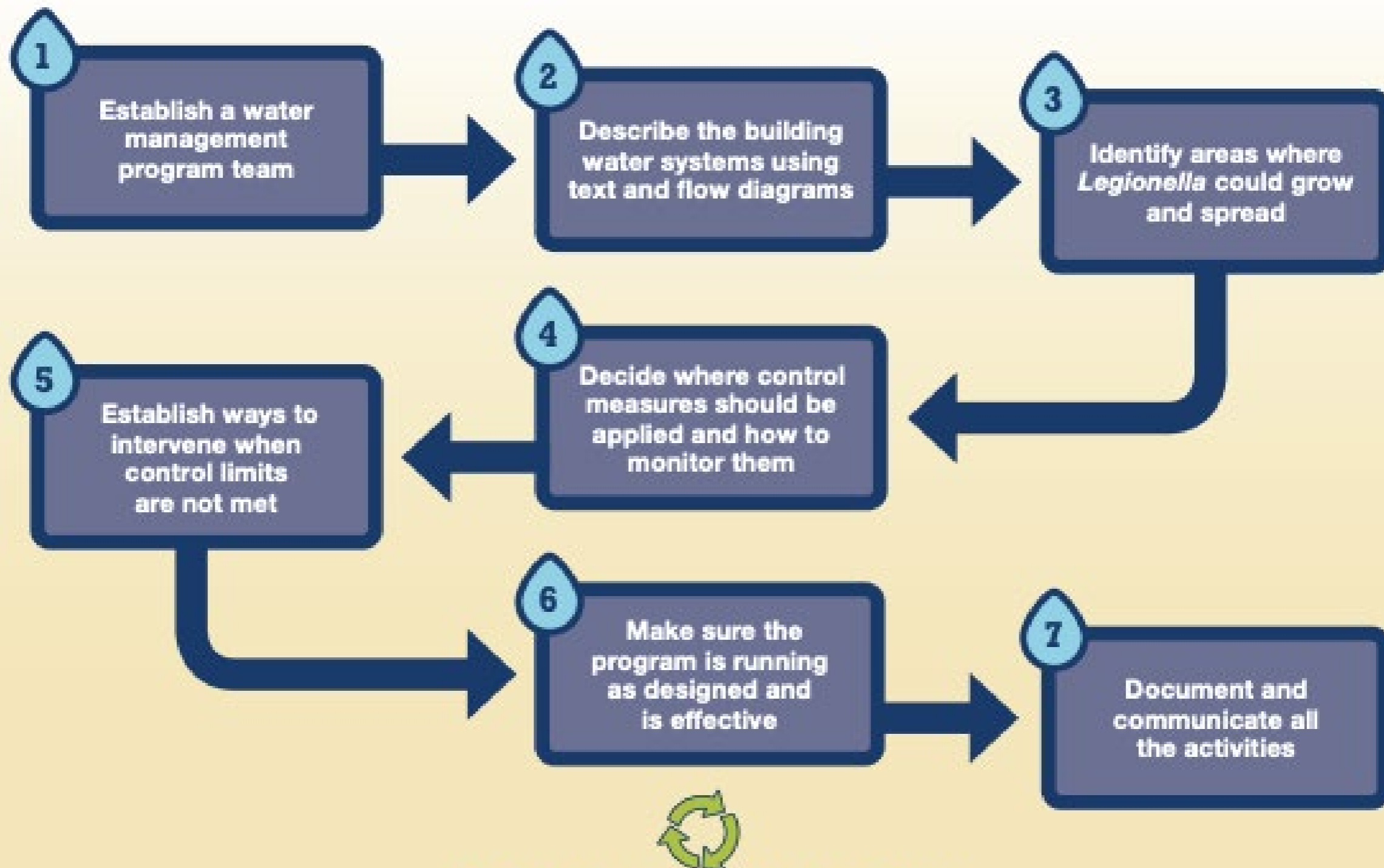
Legend:

|| Backflow Preventer

← WaterFlow

← - - - Recirculating Return Flow

□ Water Process



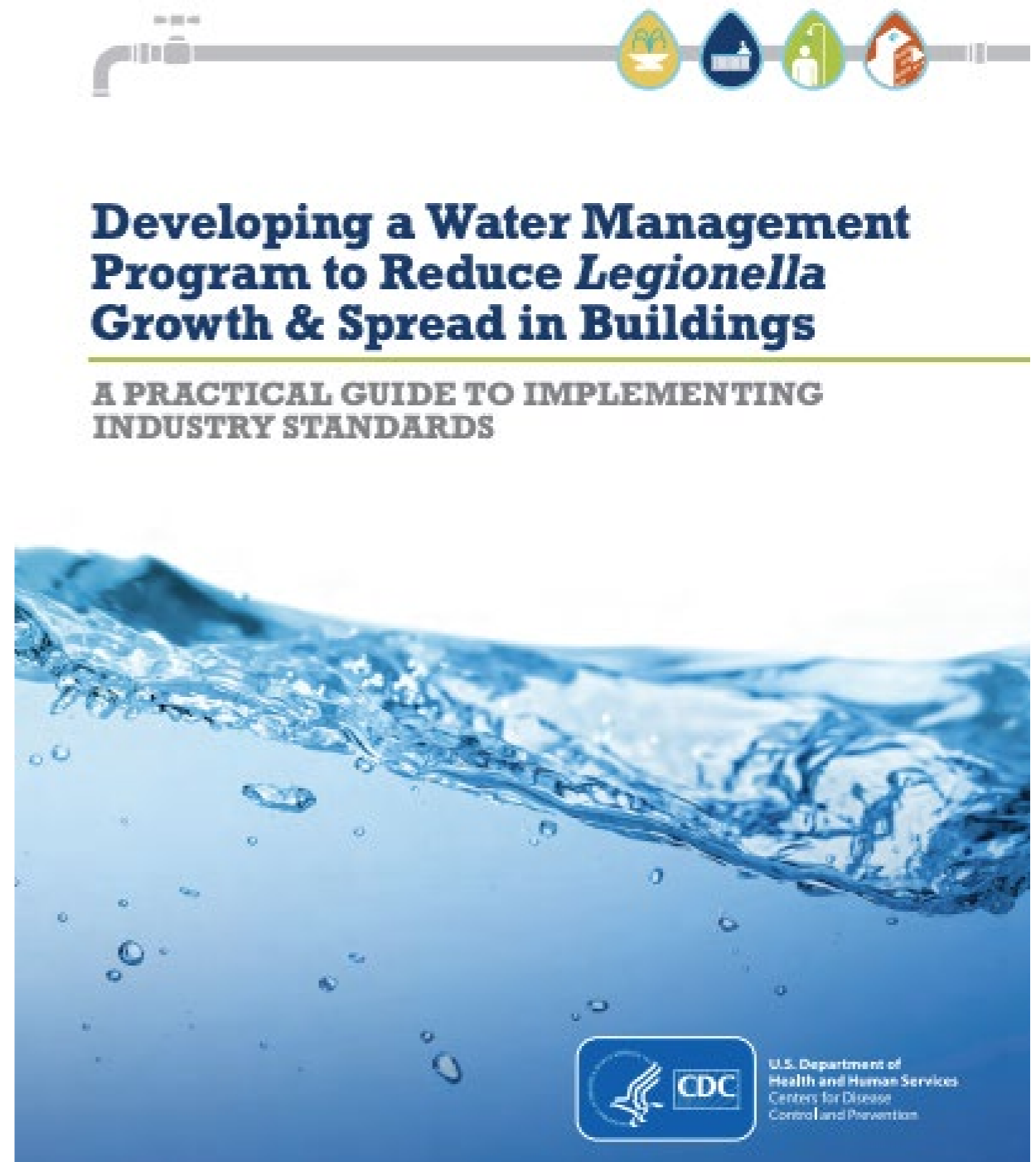
Continuous program review (see below)

Source: CDC



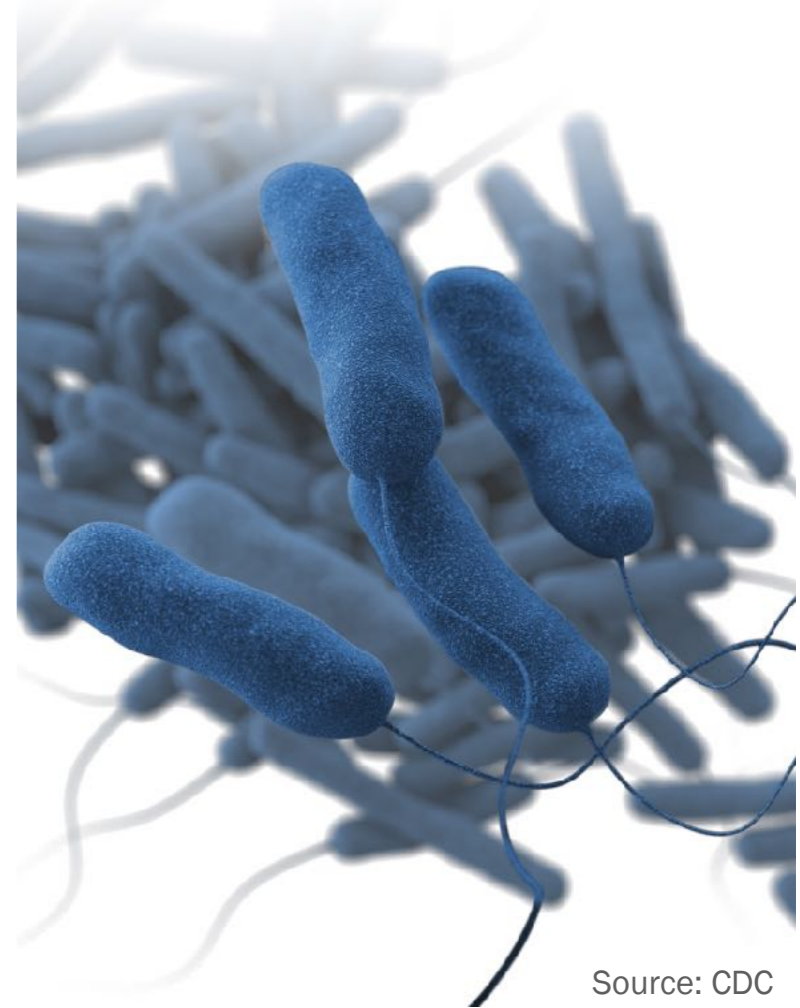
Builders, owners and managers

- Learn about and follow newly published standards for building water management programs.
- Develop and use a building water management program.
- Determine if building water systems are at increased risk of growing and spreading *Legionella*.
- Monitor and respond to changes



State and Local Officials

- Incorporate building water management programs into licensing and accreditation requirements for healthcare facilities.
- Consider changing building and public health codes to include *Legionella* water management programs.
- Provide tools and information to help local building owners and managers carry out water management programs.



Source: CDC

Acknowledgments

Environmental Science Research Foundation

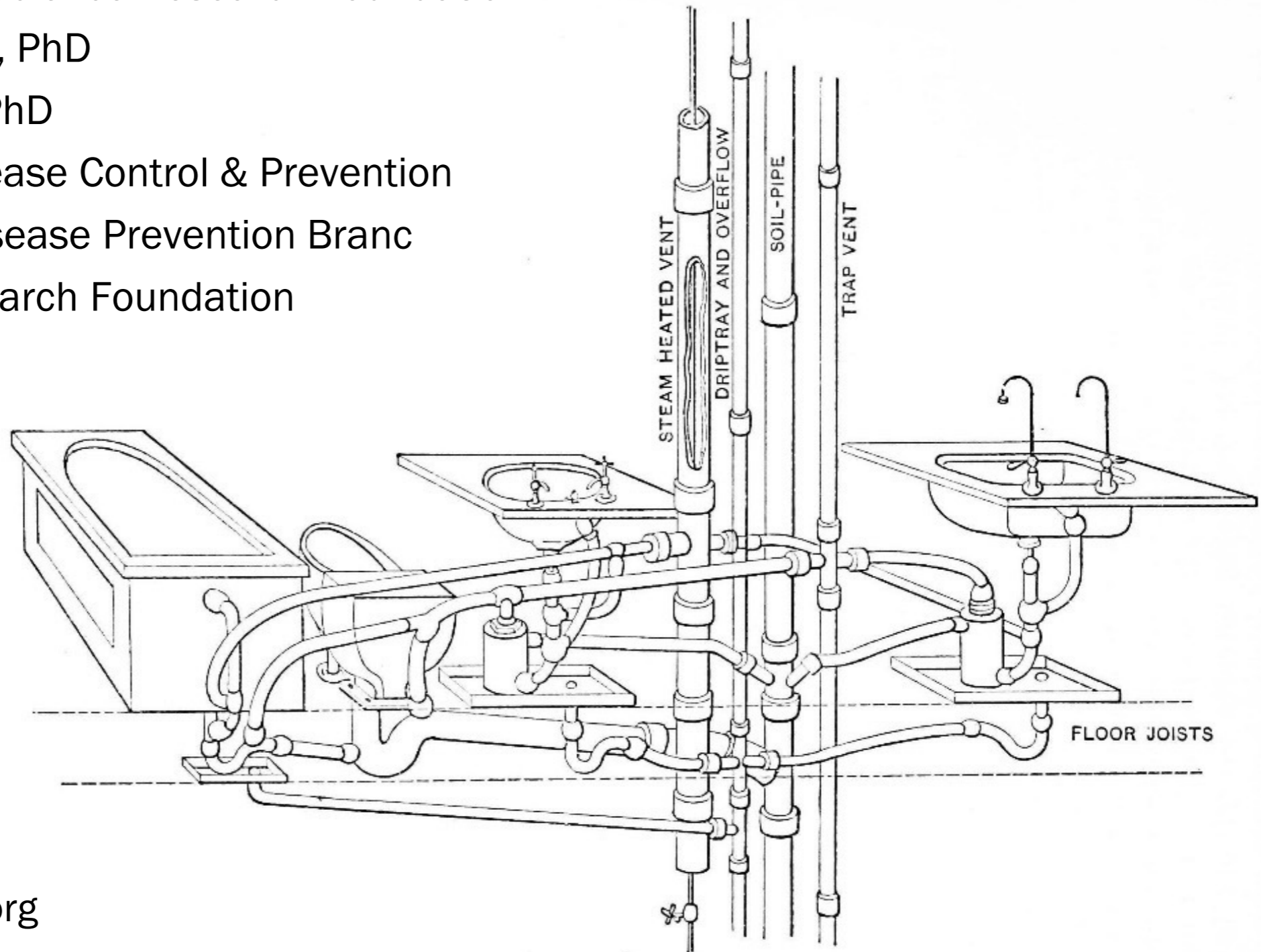
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