

# Fitwel Water Management Program Standard



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A qualifying Water Management Program must include all of the following steps:

- ☐ Establish a multidisciplinary water management program team that includes representatives from the following groups:
  - building owner/management team
  - technical experts
- ☐ Describe the building water system in graphic and written form, outlining the following:
  - Process Flow Diagram (simple one page diagram)
    - connections to external water sources
    - distribution system for drinking water supply, including the following:
      - receiving
      - cold water distribution
      - heating Methods
      - hot water distribution
      - waste (water to drain or sewer)
    - location of hot tubs, water heaters or boilers, and cooling tubs
  - Written Water Use Descriptions
    - short descriptions of how the water is processed and flows through the building to the point of distribution at fixture locations
- ☐ Identify hazards (physical, microbial, or chemical) and characterize the risks for contamination of drinking water quality, such as:
  - high water temperatures (i.e. physical hazard)
  - old pipes that leach metals into water (i.e. chemical hazard)
  - areas with major water stagnation (i.e. microbial hazard)
- ☐ Determine hazard control measures that can be applied to reduce risk of contamination, such as:
  - flushing protocol with frequency (daily/weekly/monthly) and duration (minutes)
  - maintaining water heaters at appropriate temperatures
  - replacing old piping and fixtures
  - continuously maintaining and monitoring disinfectant and chemical levels
- ☐ Determine how control measures can be regularly monitored through strategies, such as
  - visual inspections
  - checking disinfectant levels
  - checking temperatures

- Establish interventions and/or contingency responses (pre-determined corrective actions) to bring control measures out of range or above limits back into range, such as the following:
  - bring temperature into range when water temperature is too high
  - call service tech to repair when equipment pump fails
  - flush fixture for 3 minutes when oxidant levels are low
- Develop procedures to confirm the water management program is operational throughout the building water system
  - verification: confirm that program is being implemented as designed (e.g. keeping records that WMP team did what they said they would do)
  - validation: confirm program has been implemented as designed and is effectively controlling hazardous conditions throughout the building water system through the following:
    - determining test(s) to perform and frequency
    - performing test(s) to determine if the water system is operating safely and if results are outside healthy range/limits determine how to respond to bring water quality back into range/limit
- Document water management activities and inform building occupants about issues with drinking water quality

\* Fitwel Water Management Program Standard adapted from the following resources:

- The World Health Organization and the International Water Association. Water Safety Portal. The World Health Organization.
- The World Health Organization & International Water Association (2009). Water Safety plan manual: step-by-step risk management for drinking-water suppliers. The World Health Organization
- The Centers for Disease Control and Prevention & U.S. Department of Health and Human Services. (2017). Developing a water management program to reduce legionella growth & spread in buildings. The Centers for Disease Control and Prevention.
- The Centers for Disease Control and Prevention. (2018). Preventing Legionnaires' Disease: a training on legionella water management programs (PreventLD Training). The Centers for Disease Control and Prevention.
- Association of State Drinking Water Administrators. (2019). State approaches to building water system regulation. Association of State Drinking Water Administrators.
- Cunliffe, D., et al. (2011). Water safety in buildings. The World Health Organization.
- ASHRAE. (2018). Legionellosis: risk management for building water systems (ANSI approved). ASHRAE.