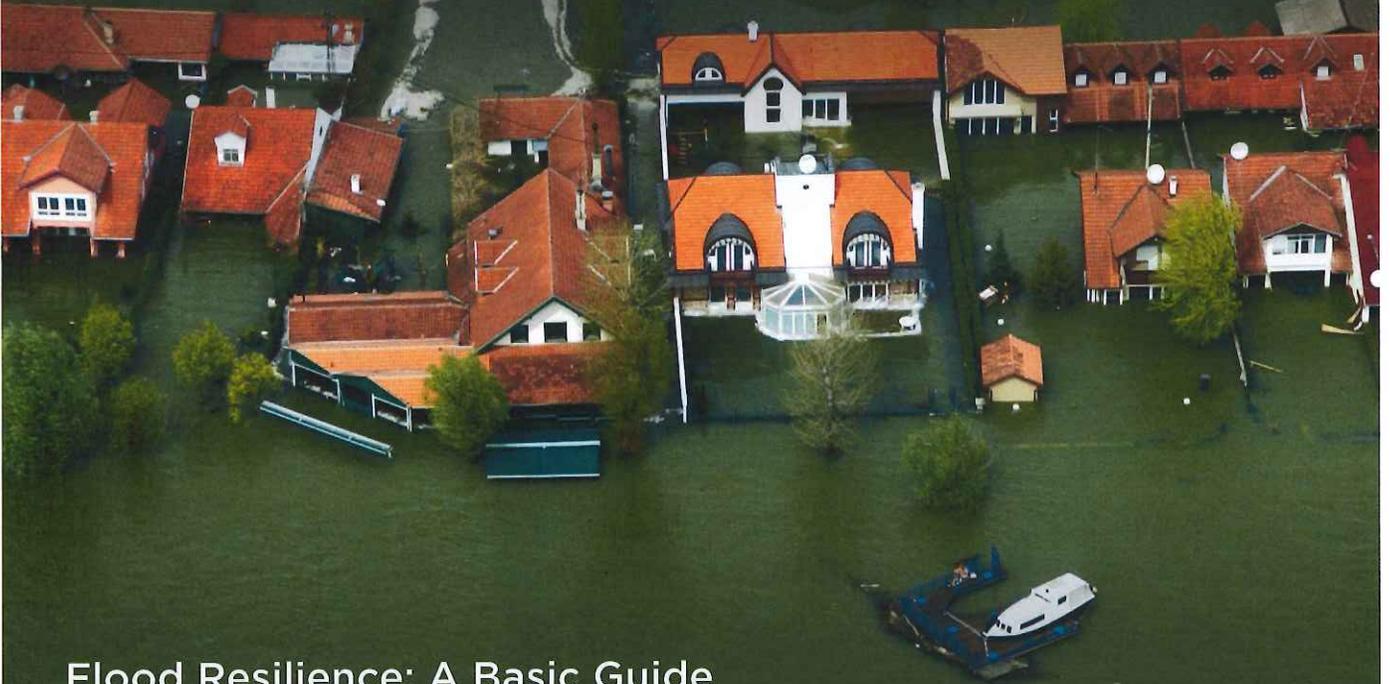




FLOODING

RISE TO THE CHALLENGE —
BEFORE IT IMPACTS YOUR UTILITY



Flood Resilience: A Basic Guide for Water and Wastewater Utilities

- Designed for small and mid-sized utilities
- Contains interactive worksheets, flood maps, videos
- Lists practical mitigation measures (see other side)



4 STEPS TO FLOOD RESILIENCE

Understand
Flooding
Threat

01

Identify Vulnerable
Assets, Determine
Consequences

02

Identify/Evaluate
Mitigation
Measures

03

Develop Plan
to Implement
Mitigation
Measures

04

To access Guide, look under Tools:
water.epa.gov/infrastructure/watersecurity/



Practical Mitigation Options for Flood Resilience



Prevent Intrusion of Flood Water

- Implement a program to keep all drains and culverts clear of debris to reduce possible flooding.
- Use sandbags to make a quick and low-cost barrier to minor flooding. Have sand and bags available.
- Install backflow preventers on low-lying overflow pipes to protect finished water.



Protect Assets and Operations

- Secure or elevate chemical and other tanks to prevent them from floating away, releasing contents, or damaging other equipment.
- Plan to move vehicles to high ground. Develop alternative methods to access the facility if entry is blocked by high flood waters or debris.
- Elevate or relocate instrumentation, electrical controls, computers, and records.



Ensure Power Reliability

- Contact your local power utility and local emergency management agency to plan for priority restoration of power to your water or wastewater utility.
- Ensure backup power for pumps, treatment facilities, and remote units. Purchase, rent, or borrow generators (e.g., through mutual aid). Install connections to enable your utility to rapidly hook up generators to your system.
- Make sure generators, electrical connections, and fuel supplies are protected from flooding (e.g., elevated, easy to access).
- Arrange for priority access to fuel supplies (e.g., vendor contract).