

INFLOW & INFILTRATION

a technical overview

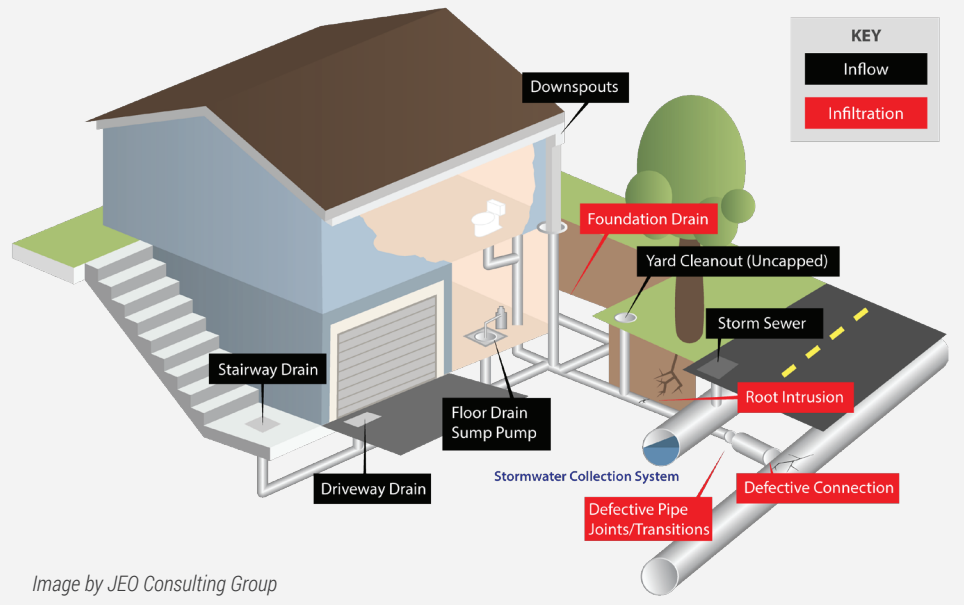
Inflow and infiltration (I/I) is a term used to describe when clean water, like stormwater and groundwater, enters wastewater collection systems.

DEFINITIONS

Inflow is typically stormwater entering the collection system through sources like manhole covers and improperly connected sump pumps and roof downspouts. The amount of inflow peaks during and immediately after rainfall events, and can result in sanitary sewer overflows (SSOs) and basement backups.

Infiltration is typically groundwater that seeps into the collection system through sources like cracked sewer pipes or deteriorating joints. In areas with high groundwater, or when wet weather temporarily raises groundwater levels, infiltration can increase the base flow of the collection system.

SOURCES OF INFLOW AND INFILTRATION (I/I)



Excessive inflow and infiltration takes away valuable capacity and diminishes the functionality of the sanitary sewer system.

- When I/I overwhelms the sanitary sewer system, wastewater can back up into homes and streams.
- I/I creates wear and tear on the sanitary sewer system by conveying and unnecessarily treating clean water.
- The presence of I/I in the system limits the community's growth potential and artificially accelerates the need for system upgrades.

Reduction of inflow and infiltration will benefit both the community and individual property owners by:

- Restoring the capacity of the existing system to its designed use.
- Delaying the need for capital improvements projects to expand the system.
- Reducing the risk of SSOs, and the expense of cleaning up such costly backups.
- Minimizing the cost (paid through user rates) of pumping and treating otherwise clean water.
- Limiting undue wear and tear of the system.

For more information, visit lincoln.ne.gov, keyword: I/I study.