

Chapter 15 Highlights

1. Urban water managers are starting to think in an integrated way across different water flows (drinking water, wastewater, rainwater, stormwater, urban streams) to alleviate scarcity, flooding, and pollution, and improve the health of urban waterways and communities.
2. Urban water suppliers should strive to achieve a high level of reliability, but must recognize that they may not be able to satisfy 100% of the demand 100% of the time. Advance planning can help cities weather drought and avoid the *hydro-illogical cycle*.
3. Urban water use includes indoor and outdoor household use, as well as CII use and *non-revenue water*. Water demand, especially for outdoor use, tends to be highest in dry regions and during dry periods.
4. Water conservation programs have had great success in reducing urban water demand, but most cities still have more conservation potential. The greatest focus should be on reducing outdoor use, fixing leaks, and encouraging adoption of efficient appliances.
5. Higher water prices are a critical tool for encouraging conservation and ensuring financially sustainable water utilities, but there must be mechanisms to ensure that lower-income households can afford the water they need for basic uses.
6. Urban use of rainwater, stormwater, and wastewater as water supplies is growing, as it simultaneously addresses scarcity, stream water quality, and flooding. There is growing interest in combining wastewater reuse and water harvesting to create small-grid and non-grid alternatives to Water 3.0.
7. Urban streams suffer from a variety of insults, not all of which fit well with the tools available under the Clean Water Act. Stormwater flowing through *MS4s* is considered a point source, but effective stormwater management requires watershed-wide changes rather than end-of-pipe treatment.
8. Stormwater managers are increasingly using green infrastructure to reduce effective imperviousness, recharge groundwater, and help restore natural hydrologic pathways.