



Concerns about water arise both on the supply side and the demand side, i.e. at both abstraction and consumption. In some ways, the considerations facing water use are similar to those for waste: prevention, minimisation, reuse, and recycling.

This advice relates only to the consumption of water, mostly by commerce and industry. However, some of the principles are equally valid at residential scale as well.

Most consumers receive their water exclusively in the form of potable water from their local municipality. There are industrial and commercial users who use their own boreholes and/or dams. Each consumer of water needs to consider the merits of the various good practices mentioned here and should keep in mind whether it is security of supply or simply costs they want to consider.

Also refer to <http://www.sswm.info/category/implementation-tools/water-use/hardware/optimisation-water-use-industry/reduce-water-consum>

CONSIDERATION	GOOD PRACTICE
Water management system	<ul style="list-style-type: none"> • Introduce a comprehensive water management system that has solid principles, requirements and guidelines, similar to ISO 14046 water footprint. • The aim of such an approach is to raise awareness, change behaviour and encourage people to treat water as a valuable resource, and not simply as a commodity. • Monitor and record consumption, preferably at the lowest level of consumer or equipment.
Municipal water	<ul style="list-style-type: none"> • Municipal water is becoming a scarce resource as dams become dry and increasing demands are made for water. Prices reflect this demand – supply dynamic.
Prevention	<ul style="list-style-type: none"> • Every attempt should be made to use drinking water only for that purpose. Where possible, other arrangements should be made for the use of water in applications not requiring potable quality water.
Minimisation	<ul style="list-style-type: none"> • The use of all water should be minimised, not only potable water. The supply of potable water may be limited. The availability of water from other sources is also limited and costly due to the energy required for the supply system. • In commercial applications, water consumed by use of showers and basin taps can be reduced by fitting low flow outlets. The use of a bath is discouraged as it uses more water than a shower. • Waterless urinals are recommended in commercial and hospitality applications. • Potable water should never be used where a brush or broom could be used. Where this is not possible, use high pressure, low volume lines with trigger guns.
Reuse	<ul style="list-style-type: none"> • Direct reuse of water may not be possible because of contamination by the process.



Recycling

- Recycling of water has become much more prevalent and suppliers are offering grey water (from showers and basins) and black water (from urinals and lavatories) treatment systems.
- Process water may be suitable after straining out large section contaminants and passing them through reed beds or treating them with chemicals.

Rain water harvesting

- Where there is sufficient space, tanks can be installed so that rain water falling from the roof can be collected for later use. This water is not normally potable but can be readily treated for drinking.

Boreholes and rivers

- River and underground water is not the property of the owner of the adjacent property, nor of the property that is over the source. Abstraction licences are required for most applications. While it may be opportune to use water from these sources, it is not necessarily good practice in the long-term because increasing levels of abstraction would lead to a reduced supply for all.

Water distribution

- Pipes often run underground or are embedded in walls. Leaks from underground pipes are usually not noticed. Either have the route tested with a proprietary detector or use flow meters on suspect lines.
- All leaks, including small drips, should be repaired as soon as possible as the cumulative loss is surprisingly high.

