

iWater Toolsheets / Approaches and concepts:

Low Impact Development (LID)

Water sensitive urban design (WSUD)

There is an ongoing cultural change in the management of urban drainage and the opportunities it presents are widely recognized. Consequently, terminology describing the principles urban drainage and coherent planning approaches has developed as well.

Why: In different parts of the world, different terms are used to describe reminiscent approaches. The term *Low Impact Development* (LID) has been commonly used in North America and New Zealand, and dates back to the 1970s. The approach attempts to minimise the impact of development (and the subsequent stormwater management) on nature. The most recent LID manuals re-establish hydrological targets for both retrofit and new urban developments as well as provide design options to meet and sustain these objectives.

The term *Water Sensitive Urban Design* (WSUD) began to be used in the 1990s in Australia. The objectives of the approach is to manage the water balance, maintain or even enhance the water quality, and maintain water-related environmental and recreational opportunities. Stormwater management is a subset of the WSUD approach that aims to address the whole urban water cycle on all scales and densities.

How: The concepts offer a strategic approach to urban planning and design that aims at minimising the hydrological impacts of urban development on the surrounding environment. Strategic approaches deliver the principles and objectives of the ways the water infrastructure is considered in planning and design projects.

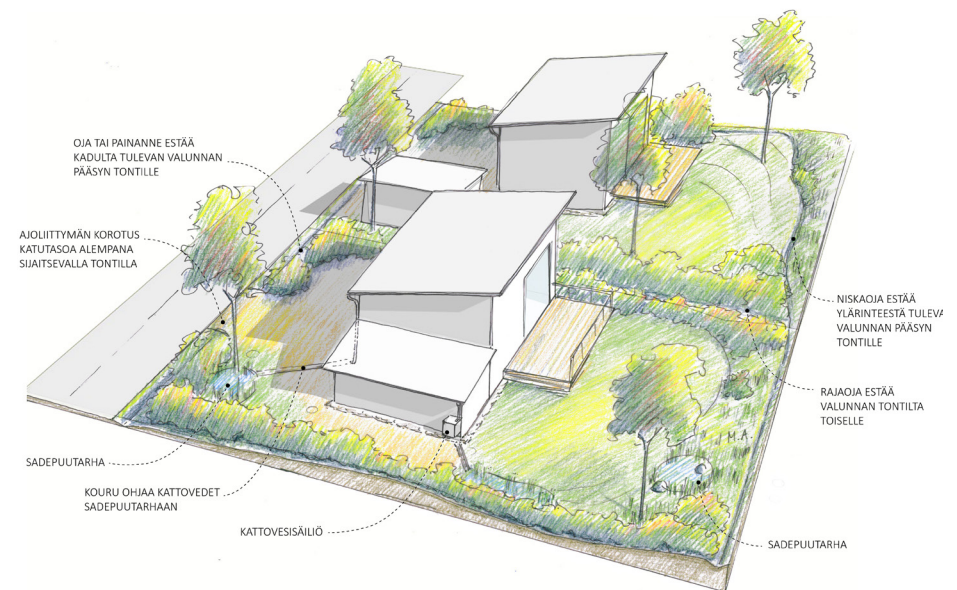
Good to know: To achieve the objectives, different techniques can be used. These techniques are generally categorised under *best management practices* (BMPs) or *sustainable urban drainage systems* (SUDS) (See relevant toolsheets for BMPs and SUDS).

Alternative techniques (ATs) and *compensatory techniques* (CTs) are terms used in French-speaking countries for reminiscent approaches.

POINT 1
URBAN
RESILIENCE

POINT 2
TECHNICAL
OPTIMI-
ZATION

POINT 3
DAY-TO-DAY
VALUES



LID and WSUD provide principles, for example, for low impact residential development. Illustration from a manual that introduces LID techniques for private land owners and developers (city of Tampere).

More information:

www.lid-stormwater.net

www.newwaterways.org.au

Video explaining WSUD:

https://www.youtube.com/watch?v=b_DTnOzYTR4

