

Australian examples of residential Integrated Water Cycle Planning — Accepted current practice and a suggested alternative

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ABSTRACT

Australian examples of Integrated Water Cycle Planning (IWCP) for residential development demonstrate that providing multiple household-water connections is a generally accepted practice. These connections typically include a potable mains supply, a separate non-potable supply utilising reclaimed water and/or a household roofwater tank for non-potable uses. Stormwater is not fully exploited as a potential urban water source. The advent of national guidelines for using recycled water for drinking purposes is expected to simplify IWCP towards a single-line household-water supply reclaimed from a range of different sources. An IWCP approach is suggested in this paper based on a single household supply complemented by: 1) potential separation of blackwater to reduce human health risk and to enhance community acceptance of recycled water, 2) the use of water sensitive urban design requirements of storing and slowly releasing urban stormwater, and 3) taking advantage of economies of scale by integrating communal roofwater tanks into the urban stormwater system.

Keywords: Integrated water resources management; Water recycling; Water reuse; Water resources; Stormwater
