

Summary of changes to Engineering Technical Standards and Specifications

High-level clarifications to the Tech Specs

The Addendum No. 1 to the City of Busselton Engineering Technical Standards and Specifications, dated 28/08/2026, introduces several high-level technical clarifications aimed at modernising groundwater management and ensuring infrastructure sustainability.

The following is a list of the key changes:

1. Technical Terminology and Definitions

- Introduction of Design Groundwater Level (DGL): The addendum replaces the confusing use of "Controlled Groundwater Level" (CGL) with DGL to define separations from relevant infrastructure.
 - In non-engineered areas, DGL is typically the predicted post-development Maximum Groundwater Level (MGL).
 - In engineered areas, DGL is calculated based on the highest mounded phreatic surface between subsoils, following IPWEA 2016 guidelines.

2. Updated Groundwater Separation Requirements

- Finished Lot Levels (FLL): Must be at least 1200mm above the DGL.
- Fill Material: A minimum depth of 1200mm clean soil is required across all lots, which must maintain a saturated hydraulic conductivity of at least 5m/day (compacted at 95% MMDD).
- Roads and Access Ways: The DGL must be at least 500mm below the lowest sub-grade to protect the road base.
- Drainage Basins: A separation of 300mm is required between the invert level of basins and the DGL.

3. Subsoil System Restrictions

- Prohibition of Cross-Boundary Pipes: Private subsoil systems must be contained entirely within individual lots and shall not cross adjoining lot boundaries.
- Independence from Road Systems: Subsoil drainage within road reserves is dedicated to road infrastructure only; lot subsoil drainage must operate independently.

- **Maintenance Liability:** The City will only manage subsoil drainage in road and drainage reserves. Management of subsoil within private property is strictly the lot owner's responsibility.
- **Design Standards:** The addendum introduces specific subsoil pipe gradients (absolute minimum 1:250) and requires flushing points at all changes in direction.

4. Verification and Mandated Infrastructure

- **Permeability Testing:** Mandatory laboratory saturated permeability testing is now required (1 sample per 2000m² for large developments, or 2 tests for areas under 1500m²).
- **Mandated Soakwell Locations:** The City may accept mandated location of underground infiltration drainage (typically at the front of lots) to ensure the operation of groundwater control systems.

5. Planning and Sustainability Requirements

- **100-Year Planning Horizon:** All assessments, including outfall flow and groundwater levels, must now consider the 100-year timeframe and the influence of Sea Level Rise (SLR).
- **Risk and Cost Assessments:** Developers proposing variations from these standards must submit a comprehensive assessment covering long-term maintenance projections and evidence of sustainability over 100 years.

6. Industrial/Commercial Subdivision Standards

- **Fill Requirements:** Industrial lots must be filled 1.5m above the DGL.
- **DGL Limitations:** The DGL in industrial areas must be at or above pre-development AAMGL and cannot be lowered.