

Project: Swansea Development  
Calculations for Storage Requirements  
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Checked by:XXXXXX  
Date: February 2026

The difference between our peak discharge and greenfield rate is:

$$35.8 - 5.25 = 30.5 \text{ l/s}$$

This means we need to store this excess water

$$\begin{aligned}\text{Volume} &= (\text{Peak Runoff} - \text{Greenfield Runoff}) \times \text{Duration} \\ &= 30.5 \times (60 \times 60) \leftarrow \text{How duration} \\ &= 30.5 \times 3600 \\ &= 109961.892 \text{ l}\end{aligned}$$

Convert to  $\text{m}^3$

$$109961.892 \div 1000 = \underline{\underline{110.0 \text{ m}^3}}$$