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**Appendix 6C**

**Estimation of Residual Fertilizer and  
Washable Deposited Pesticides and  
Volume of Storage Tanks**

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## Appendix 6C

### **Estimation of residual fertilizer and washable deposited pesticides and volume of storage tanks**

1. Control
  - 1.1 The dosage of fertilizer and pesticides shall be controlled to limit the residual fertilizer and washable deposited pesticides to less than 10 % of the dosage.
  - 1.2 The water use is about 40.5 m<sup>3</sup> for each watering during wet season.
2. Assumptions
  - 2.1 In each watering of 40.5 m<sup>3</sup>, the football pitch will take up more than 75% of the water due to evaporation and transpiration. Maximum 25% water will be collected through surface runoff or porous drain into the first water tank.
  - 2.2 The residual fertilizers and washable deposited pesticides will be rinsed for recycling after five cycles of irrigation or equivalent.
  - 2.3 5% surface runoff is seeped into ground.
3. Tank Volume Estimation
  - 3.1 Tank No. 1
    - 3.1.1 There will always be about 10 m<sup>3</sup> of irrigation water in the tank, i.e.  
 $25\% \text{ collected} \times 40.5 \text{ m}^3 = 10 \text{ m}^3$
    - 3.1.2 Capacity for five cycles of irrigation water

$5 \times 40.5 \text{ m}^3$	=	202.5 m <sup>3</sup>
Total volume		212.5 m <sup>3</sup>
Say		250.0 m <sup>3</sup>
  - 3.2 Tank No. 2
    - 3.2.1 Since it is a fail-safe standby tank, volume same as Tank No. 1, 250 m<sup>3</sup>.
  - 3.3 Total capacity to cater for Black Rainstorm Warning (70 mm for 1 hour).  
Total capacity = 95% x 0.07 m x 11,000 m<sup>2</sup> + 10 m<sup>3</sup> = 741.5 m<sup>3</sup>.
  - 3.4 Tank No. 3  
Volume of Tank No. 3  
= Total storage capacity – Tank No. 1 – Tank No. 2  
= 741.5 m<sup>3</sup> – 250 m<sup>3</sup> – 250 m<sup>3</sup>  
= 241.5 m<sup>3</sup>, say 250 m<sup>3</sup>
4. Dosage estimation
  - 4.1 Residual fertilizer and washable pesticide 10%
  - 4.2 95% collected in intercepting system  
5% seepage into ground
  - 4.3 Seepage into ground : 5% x 10% = 0.5%, negligible
  - 4.4 Due to geological formation and presence of underground structures, this 0.5% seepage will not reach Victoria Harbour or Kai Tak Nullah.