

## **Base information and Assumptions for modelling**

### **24 January 2018**

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#### **1. How to use the model**

The targeted percentage water savings is 45% for urban consumers (CCT and Other Municipalities) and 60% for agriculture. These are the default settings.

The User will need to select, from the drop down, various water saving percentages, for each of the consumer categories.

The User will then be able to adjust evaporation losses. These adjustments range from low, normal and high.

The user may define augmentation project yields by inserting a value, in MI/day, and setting the start date of when this project is expected to begin.

The user will then be able to reset the values, back to the default values, by selecting the reset estimator button.

#### **2. Limit of usable water**

The graphs indicate both 13.5% and 10%. This is to indicate Day 0 trigger, and 10 % storage, where after abstraction is difficult.

#### **3. Starting volume**

The actual starting volume is updated weekly.

#### **4. Evaporation**

Evaporation is highly variable and is calculated from history of dam levels and measured water released. A most likely evaporation has been calculated as well as maximum anticipated.

#### **5. Urban and Agriculture Annual Average Daily Demand (AADD)**

The historic AADD for urban agriculture has been used in the model. Agricultural use is seasonal and depends on releases made irregularly. Similarly, urban use fluctuates seasonally, and during restriction periods.

On average, ~64% of water in the WCWSS is supplied through CCT, and ~7% to other municipalities. In the model, the demand of other urban users is assumed to be 10% of the CCT overall usage from the WCWSS.