

# **Implementation of the Water Resources Classification System and Determination of the Resource Quality Objectives for Significant Water Resources in the Letaba Catchment**

## **Item 6.2a: Water Resources**

*Project Steering Committee*

*12 March 2013*




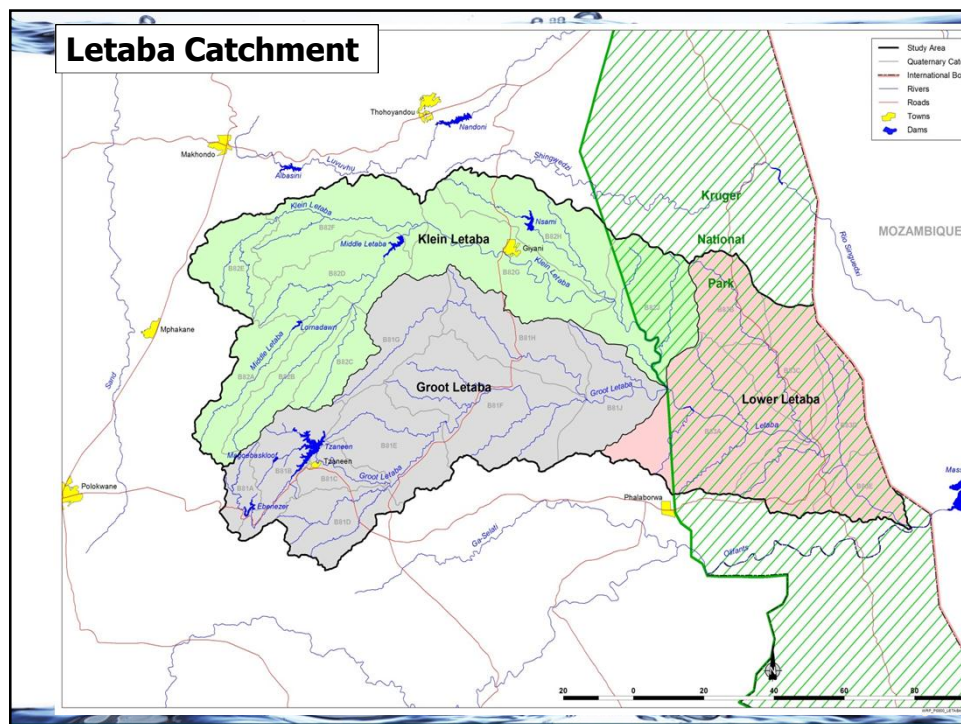
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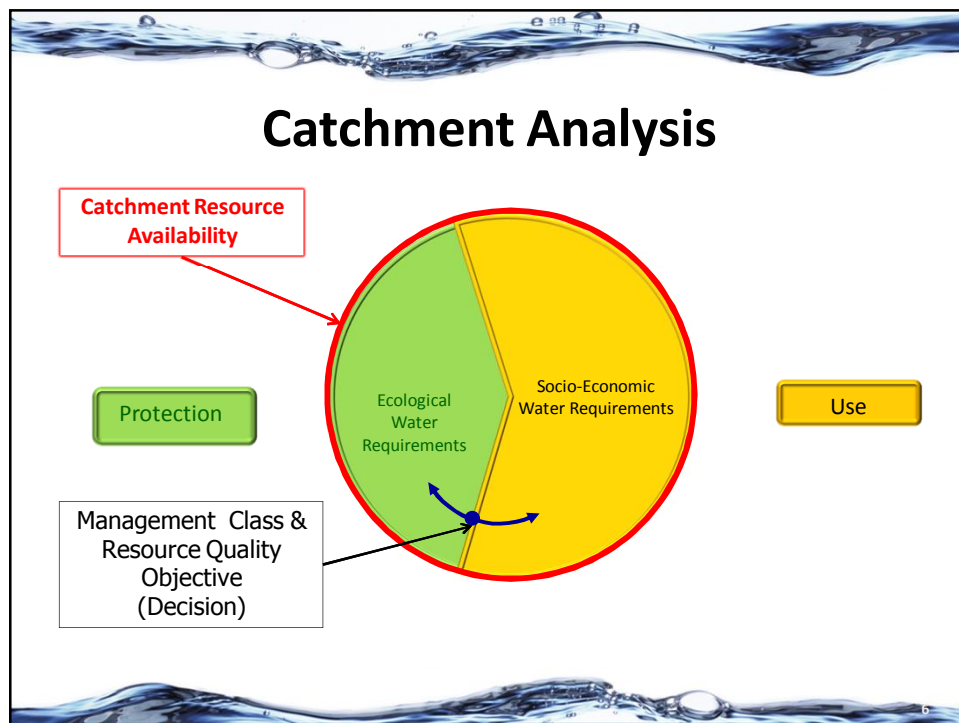
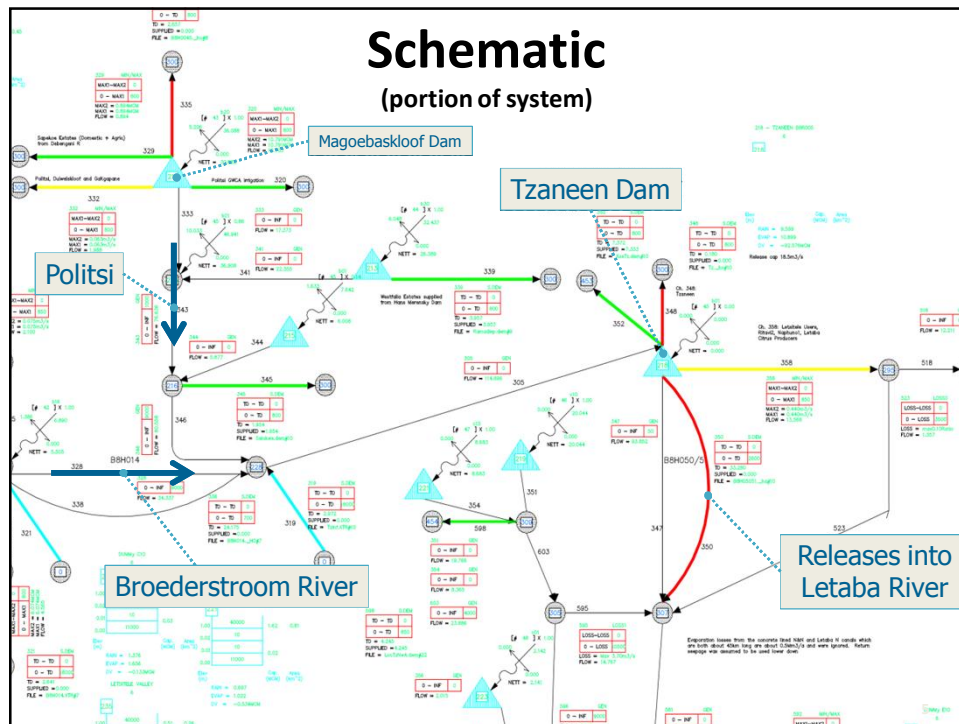
## **Layout**

- “ Status Quo assessment approach
  - “ Water Resource numerical modelling - approach
  - “ Integrated Resource Management
  - “ Integrated Units of Analysis (IUAs)
  - “ Water Resource Overview per IUA
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## Approach

- “ Identify decision support systems & data
  - . Data quality assessment
  - . Surface and groundwater
  - . Land use affecting water balance
- “ Augmented by inspecting satellite imagery
- “ Record information per Sub Quaternary Reaches
- “ Classify water use importance
- “ Prepare resource perspectives for IUA delineation
- “ Collate data and models for numerical analysis






## **Integrated Resource Management**

- “ Source for water resource management scenarios
  - . Intervention planning and reconciliation strategies
  - . Current and future water requirements
- “ Alignment by formulating coherent scenario for evaluation
- “ Implications of classification scenarios:
  - . Reduced supply – implications on irrigation urban assurance of supply
  - . Example of a scenario: Implementation of Tzaneen Dam Raising and proposed Nwamitwa Dam



## **Luvuvhu and Letaba Reconciliation Strategy**

### **Potential intervention options (under investigation):**

- “ Water conservation and demand management
  - “ Groundwater development
  - “ Re-use treated sewage effluent
  - “ Infrastructural development options and schemes i.e. Raising of Tzaneen Dam, proposed Nwamitwa Dam etc.
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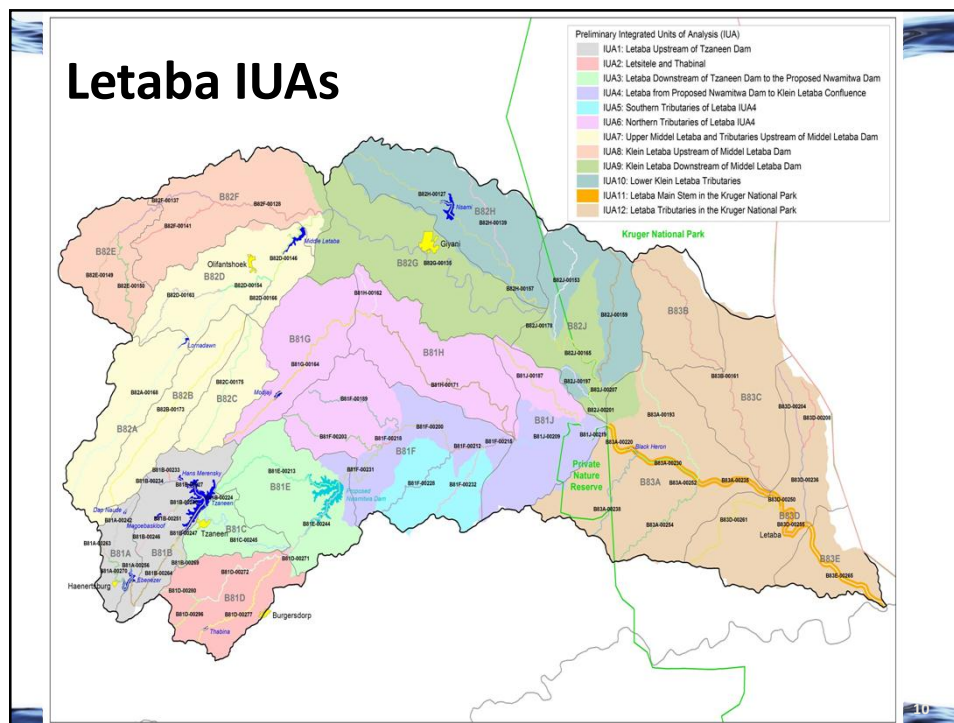
## Integrated Unit of Analysis (IUA)

### Definition:

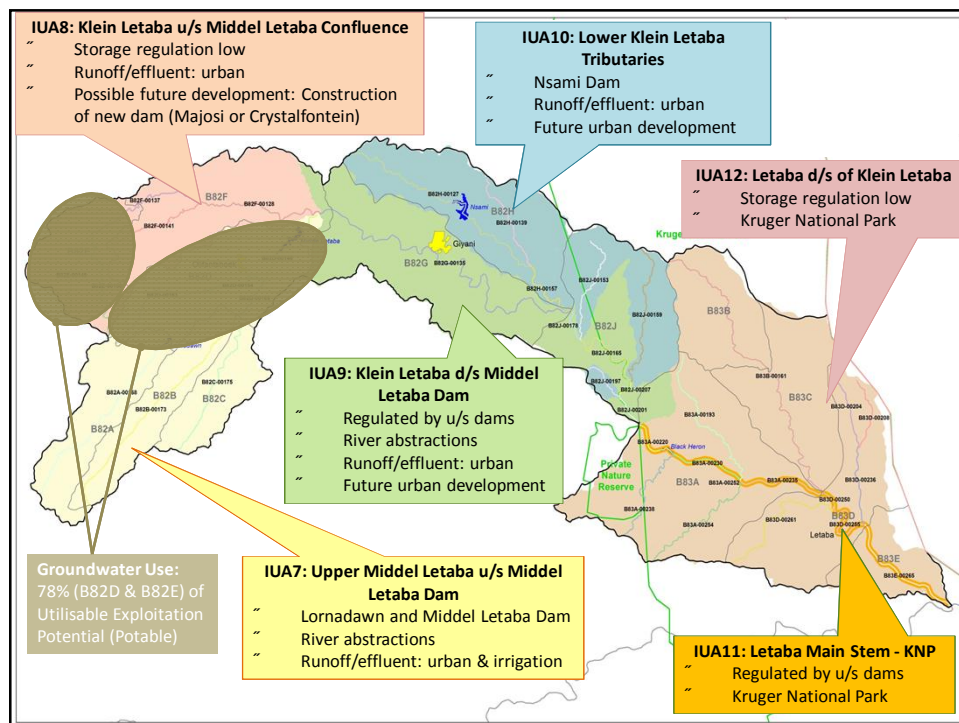
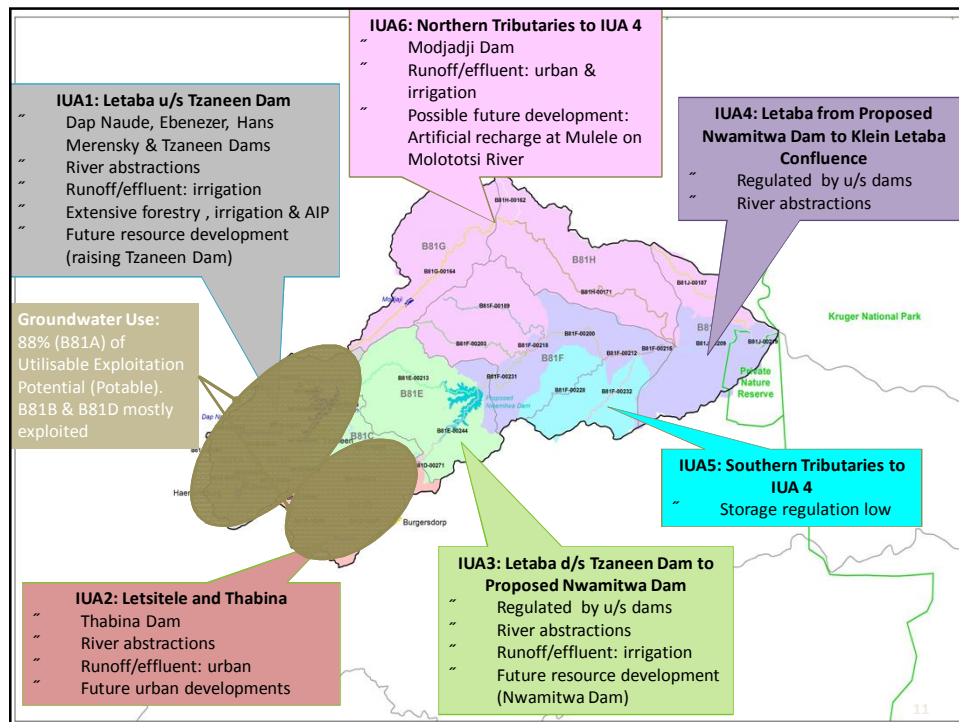
An IUA is a broad scale unit (or catchment area) that contains several biophysical nodes. These nodes define at a detail scale specific desirable attributes which together describe the catchment configuration of the IUA.

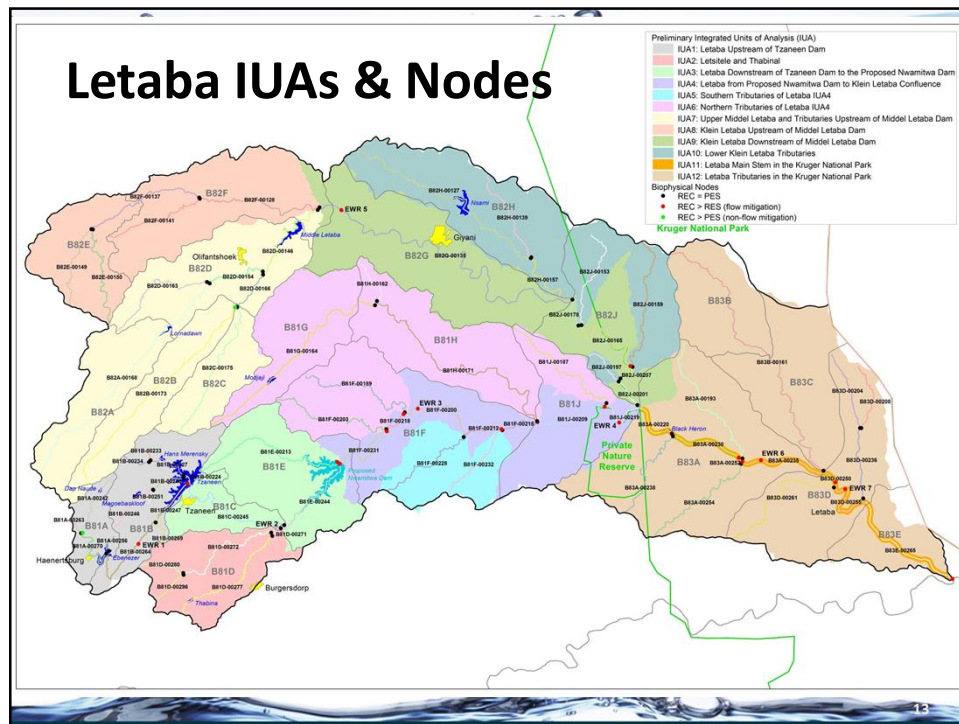
### Application:

Scenarios are assessed within the IUA and relevant implications in terms of the Management Classes are provided for each IUA.









## Thank You

## Questions for clarification?