



*we care for the future*

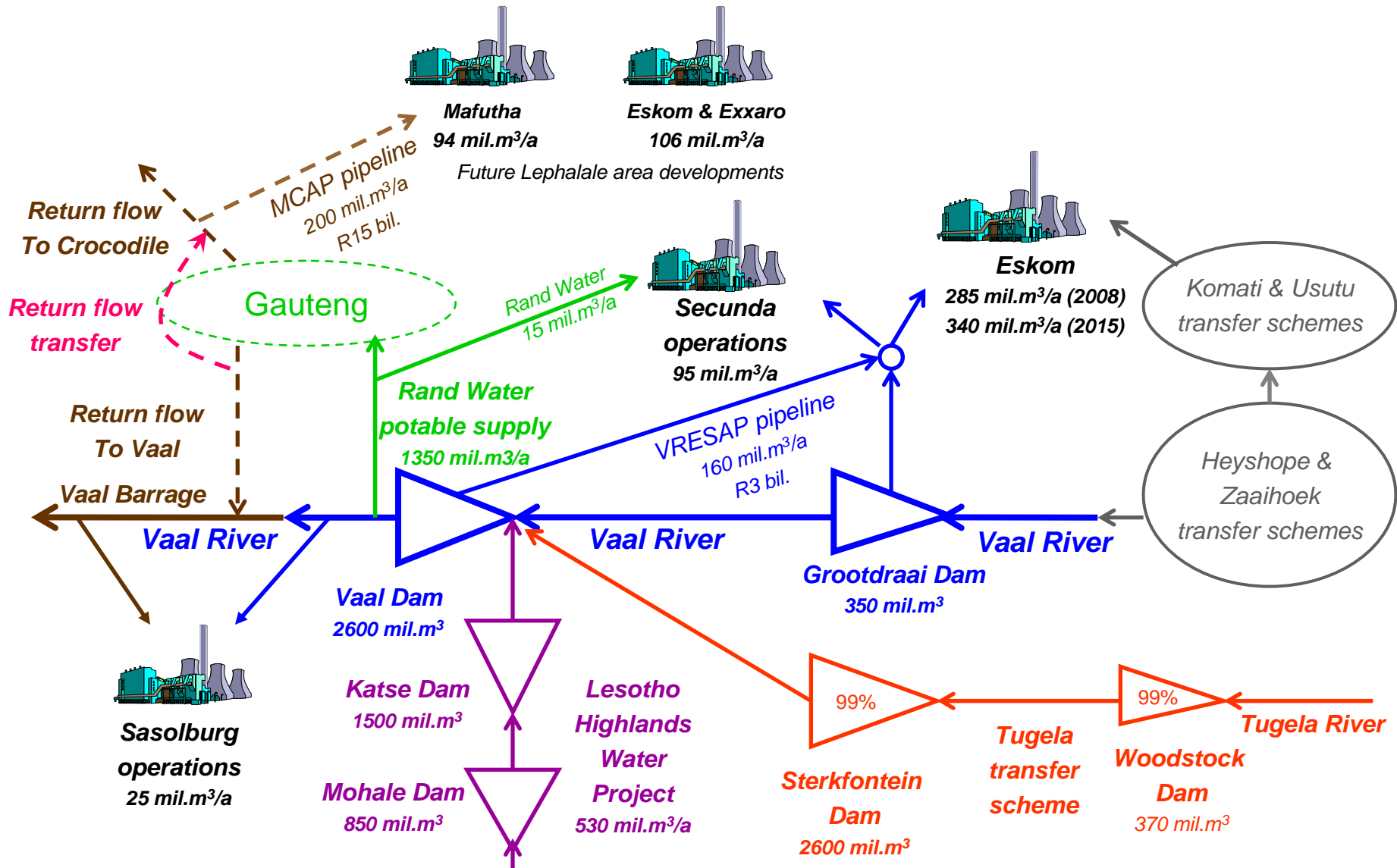
***WSLG***

***Martin Ginster***  
***13 November 2008***

# ***Water for growth and development***

- ***Background*** - the water sector was asked to look hard at its current performance, to identify its weakness and failures, and to find new and better ways of doing things to ensure that now, and into the future, there is sufficient water to support sustainable economic growth and social development.
  - ***within a water constrained region***
- *The wfgd document sets out the challenges facing government and the water sector in ensuring that water is used optimally in support of sustainable growth and development.*
  - ***be sufficiently pro-poor***
- *wfgd strategy will inform the revision of the National water resource strategy*

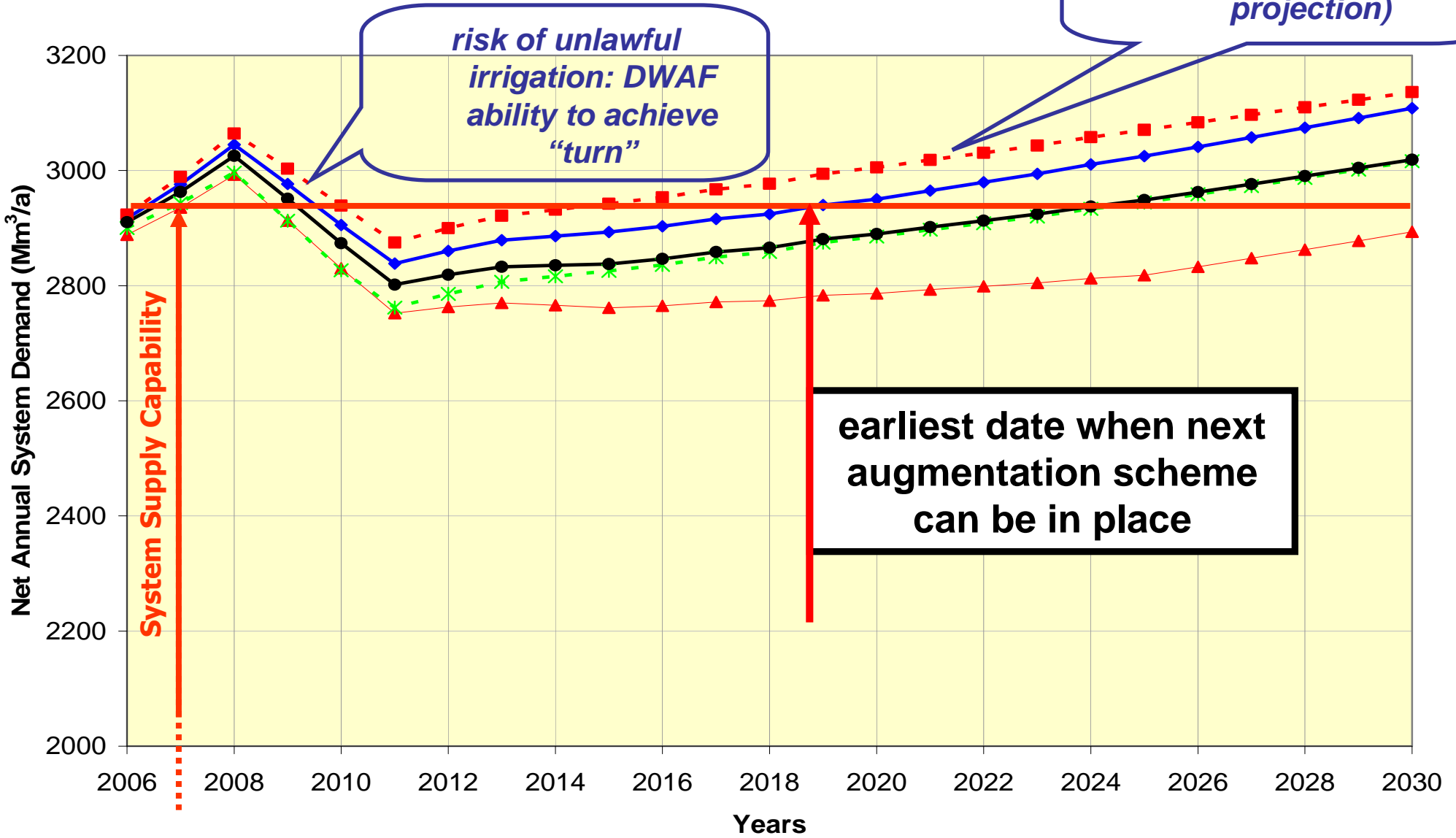
# integrated Vaal river system



water supply to Sasol operations is highly integrated and not site specific

# Vaal river system: supply vs. demand

(DWAf Vaal System Study, 2007)



◆ Scenario A   
 ■ Scenario B   
 ▲ Scenario C   
 ✱ Scenario D   
 ● Scenario E

# ***getting the Vaal system back into balance***

- outcome from Vaal River System Studies:
  - curbing unlawful water use
  - implementing water conservation/ water demand management (WC/WDM) with a focus on loss management measures at mostly municipalities
  - preparing for future augmentation
  - treating and re-using “excess” return flows (to particularly support future industrial growth)
  - implementing water quality management measures

## **FRIDGE STUDY (2009):**

### **DEVELOPMENT OF QUANTITATIVE MEASURES OF PERFORMANCE FOR A PROPOSED STAKEHOLDER ACCORD ON WATER CONSERVATION AND IMPLEMENTATION OF RECOMMENDATIONS FROM STUDIES ON WATER QUALITY**

- **FRIDGE - FUND FOR RESEARCH INTO INDUSTRIAL DEVELOPMENT, GROWTH AND EQUITY**
  - an initiative of the Trade and Industry Chamber of the National Economic Development and Labour Council (NEDLAC), funded by the Department of Trade and Industry (DTI) and administered by the Industrial Development Corporation (IDC).
- operates on a tripartite basis through a sub-committee of NEDLAC, the FRIDGE Sub-committee
- FRIDGE was established in November 1998 to assist in meeting the competitive challenges presented by South Africa's re-entry into the global market



*Climate change*

*we care for the future*

## ***Climate change - response***

- ***recognise and share global concerns that:***
  - GHGs contribute to climate change
  - growing energy demand will accelerate GHG emissions
  - technological solutions and management interventions required
  
- ***believe that challenges can be successfully overcome by:***
  - carbon and energy efficiency
    - cleaner technology
    - renewable energy and raw material sources
  - engaging with governments
    - setting targets, monitoring and reporting
    - using CDM enabled under the Kyoto protocol
  - carbon dioxide capture and storage (CCS)

***but there is no single solution, and great skill is needed to find the optimum mix of solutions for different circumstances***

## *IPCC Working Group 2 fourth assessment report*

- **africa is one of the most vulnerable continents to climate variability and change**
  - **multiple stresses**
    - **extreme poverty**
    - **frequent natural disasters**
    - **agriculture very dependent on rainfall**
    - **health burdens**
    - **etc**
  - **low adaptive capacity**
    - **the vulnerable get affected first**
  - **some adaptation to current climate variability is taking place**

## *adapting to climate change*

- **responses that business need to consider:**

- **water stresses**

- **access, demand, competition, losses, assurance of supply, extreme events, aging infrastructure**

- **agricultural production – food security**

- **rain fed agriculture vulnerable**

- **vector born diseases – malaria**

- **concerted malaria control effort**

- **biodiversity**

- **change**

- **risk to losing ecosystem services**

- **sea level rise**

**adopting climate change adaptation friendly mitigation policies**

**incorporate climate change adaptation into development agenda where possible**