

## 1.2 5x Focus areas of the Feasibility Study



## 1.3 Single biggest risk-factor



## 1.4 Important dead-lines



### Short-Term Emergency Works

- To stop decanting in WRMB.
- To protect the ECLs in CRMB (June/ July 2013); and
- To protect the ECLs in ERMB (June 2014).



### Long-Term Solution

- To remove the mine water induced salt-loading (*i.e.* 2014/ 15)

## 1.5 Study status

- PSP Team mobilised;
- Data collection continuous;
- Two study management meetings held;
- Key stakeholders Identified: Engagement well advanced;
  - Meetings held with key stakeholders for e.g. Federation for Sustainable Environment, Universities, Rand Water, Treasury, etc.;
- First Study Stakeholder Committee meeting scheduled for early in May 2012 and members already invited; and
- Processes followed is flexible and will enable conventional implementation as well as implementation through Public Private Partnership or Public-Public Partnership mechanisms.

## 1.6 Initial findings in respect of implementation

- Urgency of implementation of desalination of AMD is driven by the possible reduced assurance of supply in the Vaal River System by 2014/ 15;
- Serious risk that Vaal River requirement will not be met if conventional project implementation processes are followed after the completion of the Feasibility Study;
- Alternate implementation methods will be needed:
  - i.e. parallel activities such as EIA, Transaction Advisor and rapid/ effective procurement procedures, etc. will be required;
- Dedicated project officer unit in DWA to be considered to coordinate different activities during rapid implementation; and
- Close coordination with National Treasury will be required for any PPP processes.

## 1.7 First steps for RfP

- Minister requested RfP a.s.a.p.;
- A call for Registration-of-Interest is in the process of being issued in order to test the open market;
- The aim is to enable possible service providers to register their interest in providing services such as:
  - Technology solutions,
  - Funding for implementation,
  - Providing treatment processing plants and/ or conveyance systems, and/ or
  - Providing O&M of AMD infrastructure;
- Adds to be placed (1) in the Tender Bulletin, (2) as a Press Release, (3) in general publications, e.g. Engineering News, and (4) on DWA WEB site; and
- Care is taken that this call for Registration-of-Interest will not compromise prescribed procurement processes that will follow.

## 1.8 Conclusion

- ▶ **A feasible solution (one that is technically sound, economically viable, institutional feasible, legally acceptable) is being sought as a matter of urgency;**
- ▶ Fast-tracking requires the parallel execution of tasks;
- ▶ 2x VOs and/ or 2x new Tenders are required to implement, i.e. to appoint EIA Practitioners and the Transaction Advisor, as soon as possible;
- ▶ FS is on time and on budget.

## 2. IWQM STRATEGY IMPLEMENTATION

### 2.1 Strategy aim

### 2.2 WQ status & trends

### 2.3 Progress



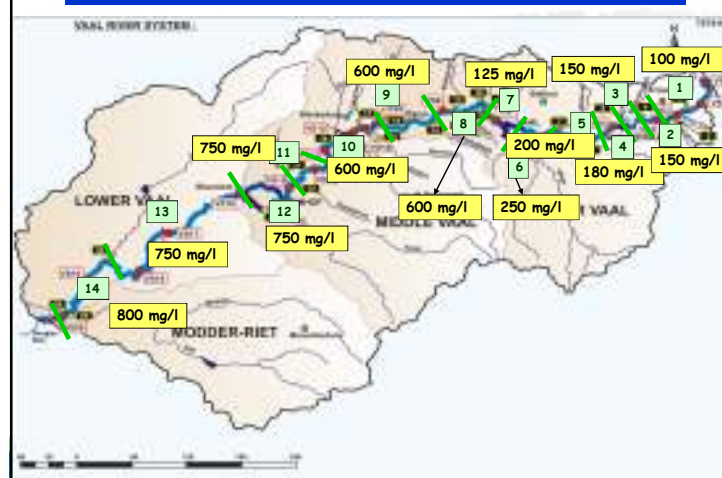
## 2.1 Strategy aim

- ▶ **Maintaining or improving the WQ** of the water resources within the System for the benefit of all recognized water users and beneficial water uses in order to assist in securing ecologically sustainable development, while also promoting justifiable social and economic development;
- ▶ Managing the water resources of the System in order to **comply with the determined integrated RWQOs**;
- ▶ Controlling the **salinity, eutrophication and microbiological contamination** levels in the System, and major tributaries, as the key WQ issues identified;
- ▶ **Improving source management** controls and measures as a means to limit and control point and diffuse sources that significantly impact on the water resources of the System; and
- ▶ Improving management of the water resources of the System by more effective **monitoring, assessment, reporting and management participation**.

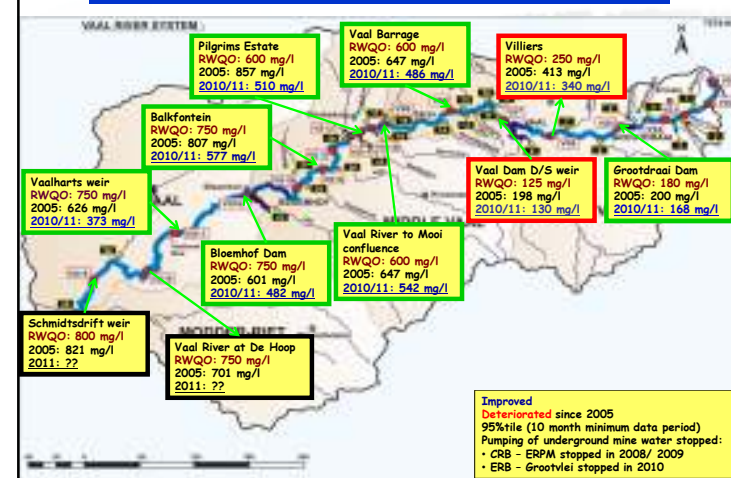
## 2.2.1 Vaal River Level 1 & 2 Monitoring Points



## 2.2.2 River Reaches & interim RWQOs (TDS)



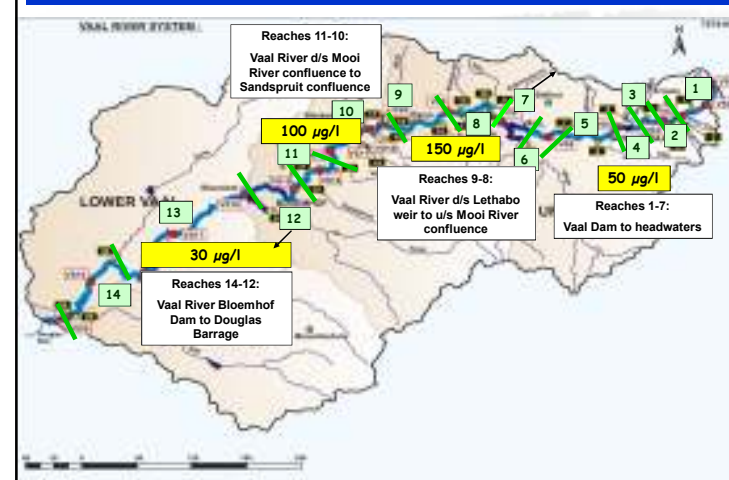
## 2.2.3 TDS Status (2005 compared to 2011)



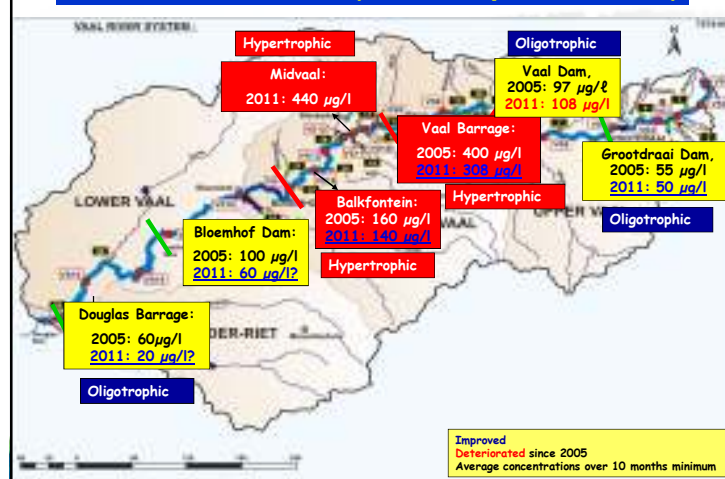
### 2.2.6 Summary of Status - Salinity

- TDS data limited in places;
- General reduction in TDS concentrations from 2005 to 2011;
- Vaal Barrage and middle Vaal improvement due to mine discharges stopping; and
- Meeting RWQO in most reaches.

### 2.2.4 River Reaches & interim RWQOs (Phosphate)



### 2.2.5 Nutrient Status (2005 compared to 2011)



26 February 2012



### 2.2.7 Summary of Status - Nutrients

- Phosphate data limited;
- Average phosphate concentrations are high;
- Upper reaches Oligotrophic;
- Vaal Dam has deteriorated;
- Vaal Barrage to Bloemhof Dam hypertrophic, requiring urgent attention; and
- Nutrient balance studies must be undertaken to understand contributions from sources so management actions can be devised and taken.

### 2.3 Progress

- 1<sup>st</sup> Vaal River Integrated WQM SSC meeting scheduled for July 2012;
  - Salinity Modelling;
- IWQM Strategy for the Orange River Basin;
  - Acid Mine Drainage (*feedback given*);
  - Mine water management (GN 704); and
  - Waste Discharge Charge System (WDCS).

**CLOSURE**



**Thank You**